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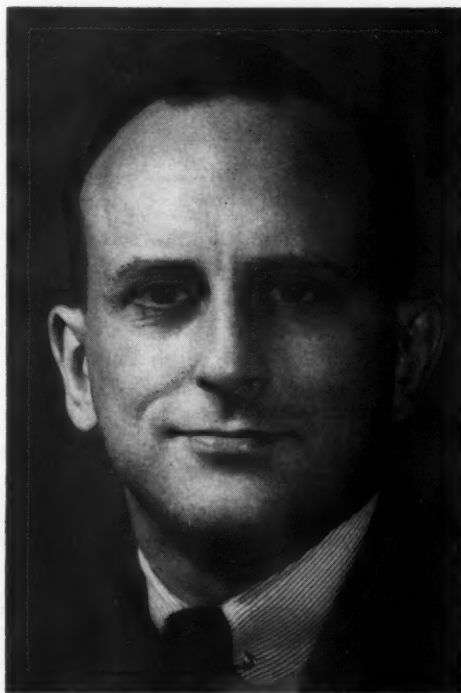
Mr. John Sargeant, newly appointed Executive Secretary of the Medical and Chirurgical Faculty of Maryland, came to Baltimore from Binghamton, New York, where he was the first Executive Secretary employed by the Broome County Medical Society. Before his work in Broome County, Mr. Sargeant was editor of the *Fairfield News*, Fairfield, Connecticut.

A native of Hamilton, Canada, Mr. Sargeant received his education at McMaster University and served with the Royal Canadian Air Force during World War II, as a Flight Lieutenant.

During Mr. Sargeant's tenure in Broome County, the Medical Society expanded its services and facilities to include the Medical Bureau, Inc., an emergency medical service on a 24-hour basis, publication of "Broome County Medicine," magazine of the county medical society; as well as organizing a number of medical forums and teaching days, including a course of instruction for medical office assistants.

A member of the American Medical Writer's Association, Mr. Sargeant received this organization's award for "Distinguished Service in Medical Journalism" in 1956. He is also a member of the Public Relations Society of America and the Medical Society Executive's Conference.

His wife is a former newspaper woman and has



JOHN SARGEANT

written articles for *Harper's Bazaar*, *Parent's Magazine*, and other national publications.

The Sargeants have two daughters, Hilary Rowland and Meredith Nichols.

Scientific Papers

CLINICAL TRIAL OF N-4-METHYL-BENZOLSULFONYL-N-BUTYL-UREA (ORINASE®*) IN ADULT DIABETICS

WILLIAM BRYSON, M.D.†

Introduction

This report concerns the clinical effects of a hypoglycemic agent used as a substitute for insulin in the control, for a three-month period, of the diabetic syndrome in fifteen patients at Spring Grove State Hospital, Catonsville, Maryland. The drug was N-4-Methyl-Benzolsulfonyl-N-Butyl-Urea and in this article it will be called "orinase®."

History

Hypoglycemic compounds have been known since the late 1920's. They are Quainidin compounds but due to toxicity they cannot be used clinically. In 1940 Propyl-Thiodiazol compounds were tested in experimental animals with resulting hypoglycemic effect. Dosage is high and consequently there is a reluctance to transfer the experimental findings into clinical activity. However, further studies have indicated that the hypoglycemic effect is closely related to the p-amino-benzol-sulfamido-thiodiazol basic structure and consequently new sulfanyl-butyl-urea preparations have been made and tested clinically in Germany. Orinase® represents one of these drugs.

Pharmacology

The drug is not related to insulin, except that it has similar hypoglycemic properties. It is a sulfa compound, readily absorbed from the in-

testines, detained in the body for a prolonged time, and eliminated via the kidneys as dissolved metabolite. The drug is highly soluble, particularly at urine pH ranges, and thus does not cause crystaluria. It is non-toxic but rare allergic reactions have been described. Like insulin, the method of action of orinase® is unknown. Each drug is a hypoglycemic agent but there is a considerable difference in the clinical effects.

The original principle of diabetic therapy was the control of dietary intake. With the advent of insulin the principle of supplementary effects by use of various types of insulin was added to the method of treatment. However, use of insulin did not solve the problem of diabetic therapy. With additional studies, the concept of the diabetic syndrome has become involved. Hormones produced by the thyroid, pituitary and adrenal glands are hyperglycemic due to their effect upon liver metabolism with the liberation of glucose to the blood. The lack of insulin, due to inherent pancreatic pathology will produce hyperglycemia. A relative insufficiency in the balance of these two hormone systems can result in hyperglycemia. Recently, the facts of glucagon and insulinase have created even more possibilities for the sight of abnormal carbohydrate metabolism with resultant hyperglycemia.

Every physician is aware of the range of variation in respect to the abnormal physiology and therapeutic response when a large group of diabetic patients is analyzed. However, alloxin and pancreatectomy have produced particular types

* Orinase® supplied by Upjohn Company, Kalamazoo, Michigan.

† Medical Officer, Spring Grove State Hospital.

of experimental diabetes which closely resemble two types of clinical diabetes. Alloxin in an experimental animal produces the clinical findings in the adult-type diabetes; whereas pancreatectomy in the experimental animal resembles the juvenile form of human diabetes. Admitted that there exist minor variations between experimental and clinical findings and that there are a few elderly diabetics who present the juvenile syndrome, the two basic types of diabetes can now be described:

A. *Experimental Alloxin or Adult Clinical Diabetes*

1. Slight sensitivity to insulin—a large dosage used with minimal unit effect.
2. Slight tendency to hypoglycemia.
3. Slight tendency to acidosis.
4. Slight dependence on insulin.
5. Longer life expectancy without insulin.

B. *Experimental Pancreatectomy in Juvenile Clinical Diabetes*

1. High sensitivity to insulin with low unit requirements. Marked tendency to hypo or hyper glycemia.
2. Pronounced tendency to acidosis.
3. Strong dependence on insulin.
4. Short life expectancy without insulin.

Insulin is more effective in the juvenile type, whereas orinase® is more effective in the adult type. In our cases (adult type) orinase® was the equal and usually superior to insulin in its ability to control the blood sugar level. Orinase® usually cannot cope with the complications arising out of the associated infections. It is often necessary to add insulin during such a period of stress. The hypoglycemic effect with insulin is of short duration, whereas orinase® is prolonged in this effect. Therefore, one daily maintenance dose is sufficient in the control of adult diabetes.

It is postulated that the major difference between these two substances may be in their effect upon the prognosis of diabetes in respect to duration of life and extent of complications. The long term effect of insulin has never been established. There are two theories: (a) That in-

ulin therapy is a substitution therapy, and as such it will create atrophy of the pancreas with further deterioration of the disease. (b) That diabetes increases slowly and gradually increases in severity until it reaches its peak of severity for a particular patient. (Two to three years for a juvenile and ten years for an adult.) It thereafter remains stationary in its severity so that insulin therapy does not affect this course. It does improve the prognosis of the patient by retarding the associated complications such as heart disease, arteriosclerosis, and retinopathy. Orinase® is not effective in a patient or animal completely dependent upon insulin—i.e., a severe juvenile diabetic or an animal depancreatized or completely de-isletized by alloxin. An endogenous source of insulin must be available for orinase® effect. Since insulin has been found in the blood stream and in the pancreases of the adult-type of diabetic patient, an endogenous source of insulin is available and orinase® is effective. Moreover, at the onset in the early juvenile diabetic there may still be a source of endogenous insulin, and orinase® may have an effect on these patients at the onset of their disease. From these facts it has been postulated that orinase® may stimulate the pancreas and increase its output of insulin in a rhythmic fashion. If such be the truth, the potential effect upon the prognosis is obvious, for with orinase® the pancreas would be stimulated to activity, whereas with insulin therapy the pancreatic activity is not increased and may be suppressed. It is now realized that, except for the severest patients, in juvenile diabetics a combination of orinase® and insulin will give better control at much lower insulin dosage requirements.

Procedure

We selected fifteen patients with the adult-type of diabetes. Table 1 indicates the age of the patient at the time diabetes became apparent. It also expresses the known duration of the disease, the amount and type of insulin required to control the sugar levels and the final

TABLE 1

Patient	Age in Years at Onset of Disease	Duration of Disease in Years	Insulin Requirements in Units	Orinase® Requirements in Grams
1. M. S.	72	4	15 U PZI	1.0
2. C. W.	66	2	20 U Lente	2.5
3. M. Q.	82	3	20 U Lente	0.5
4. B. M.	63	6 mo.	40 U Lente	2.0
5. K. M.	65	4	40 U Lente	2.0
6. K. F.	62	2	60 U Lente	2.0
7. M. B.	64	7	50 U Lente	4.0
8. A. L.	42	3	20 U Lente	1.0
9. E. H.	75	3	15 U Lente	2.0
10. A. F.	62	4	50 U PZI	4.0
11. G. H.	61	4	60 U Lente	4.0
12. J. M.	57	20	10 U PZI	1.0
13. S. S.	55	10	Never Bal.	4.0
14. E. H.	68	18	10 U PZI	1.5
15. M. Q.	79	1	20 U Lente	0.5

maintenance dose of orinase® for successful results.

Before starting orinase® therapy, each patient received the following laboratory tests: a. W.B.C. differential tests; b. Hemoglobin and hematocrit tests; c. Urinalysis; d. Glucose tolerance tests; e. Blood sugar and urea; f. Platelet count. For the first month the same laboratory tests were repeated twice per week. After one month the tests were done at weekly intervals. In addition, daily qualitative urine sugar tests were obtained. These patients were weighed at the beginning and at the end of the three month period.

The changeover from insulin to orinase® was made abruptly. Insulin was stopped and on the same day orinase® was given at an initial dose of three grams the first day, two grams the second day, and one gram each day thereafter. In each case we lost control of the patient's diabetic problem for a temporary period that varied in duration from several days to as much as three weeks. In the prolonged cases the control developed only after a gradual rise in the maintenance dose. It is quite possible that the escape period will be reduced in duration after the writers become more familiar with the drug and thereby raise the maintenance dose at a

faster rate. However, in many patients there is a definite delay in developing the maximum hypoglycemic effect. This must be reckoned with at the time of changeover.

A short resume of the cases is presented:

Emma S., age 79 years, developed diabetes at the age of 72 and was controlled on fifteen units of protomine zinc insulin. She was well controlled by both insulin or orinase® therapy. Her starting weight was 116 lbs. and the finished weight was 120 lbs. The last blood sugar ranged at 90 Mg. per cent. The patient had excellent control with either drug.

C. W., aged 68 years; developed diabetes at the age of 66; required twenty units of lente insulin per day. On insulin therapy the patient had an occasional escape with elevated blood sugar levels. She was slow to respond to orinase® but after several weeks she became controlled. The remaining blood sugar levels averaged 90 mgs. per cent. The maintenance dose was 2.5 grams. Her starting weight was 146 lbs. and her finished weight was 139 lbs.

N. Q., age 82; duration of illness one year; controlled on twenty units of lente insulin per day. The patient was well controlled on insulin, and she was well controlled by orinase®. Blood sugar ranged about 90 mgs. per cent. The maintenance dose of orinase® was 0.5 grams per day. Her starting weight was 87 lbs. and her finished weight was 90 lbs.

B.M., age 63; duration of diabetes six months. The original diabetic requirement was forty units of lente insulin per day. She was well controlled by insulin and she was well controlled by orinase®. The control sugar levels ranged near 110 mgs. per cent. The maintenance dose was two grams of orinase® per day. Her starting weight was 159 lbs. and her finished weight was 161 lbs.

K. M., age 65; duration of illness four years. Forty units of lente insulin was required each day. She was well controlled on insulin therapy. The patient was also well controlled on orinase® with blood sugar levels ranging at 100 mgs. per cent. The maintenance dose was two grams per

day of orinase®. Her starting weight was 160 lbs. and her finished weight 153 lbs.

K. S., age 60; duration of disease two years. Insulin requirements were sixty units of lente per day. The patient was poorly controlled with insulin. Her blood sugar ranged from between 130 and 170 mgs. per cent. She was slow to become balanced and required two grams of orinase® per day. The balanced blood sugar level remained about 130 mgs. per cent. Her pre-orinase® weight was 175 lbs. and her finished weight was 167 lbs.

M. B., age 64; duration of illness seven years. She was uncontrolled. The blood sugar ranged from 210 mgs. per cent to 150 mgs. per cent. The patient did not respond to orinase®. Her blood sugar levels remained between 200 mgs. per cent and 160 mgs. per cent. However, with a combination of four grams of orinase® per day and twenty units of protomine zinc insulin per day, the blood sugar level fell to normal values. We were unable to weigh this patient because of her mental attitude but we were not able to detect weight loss clinically.

A. L., age 45. Her disease was present for three years and required twenty units of lente insulin per day. She was well controlled with insulin. The patient was well controlled with orinase® and used one gram as a maintenance dose. She developed metrorrhagia, for which she received a D. & C. and a transfusion during the course of orinase® therapy, but did not lose control of her diabetes. Her last sugar levels ranged at 110 mgs. per cent. Her starting weight was 150 lbs. and her finished weight was 149 lbs.

E. H., developed diabetes at the age of 65. The disease was present for three years and the patient required fifteen units of lente insulin per day. She was well controlled on both orinase® and insulin. Orinase® produced blood sugar levels in the range of 110 mgs. per cent. Prior to the use of orinase® the patient was progressively losing weight, but during the three month period of orinase® therapy the weight remained standard at 131 lbs.

A. F., developed diabetes at age 59 years and

her disease was present for four years. She required fifty units of protomine zinc insulin per day. She was fairly well controlled with blood sugar levels ranged at 150 mgs. per cent. The patient was slow to become balanced. Her maintenance dose was four grams of orinase® per day. During therapy she developed an infected parotid gland. It was necessary to control her diabetic problem with orinase® and insulin. However, recently she has been controlled with orinase® with blood sugar levels ranging at 110 mgs. per cent. Her starting weight was 160 lbs. and her finished weight was 155 lbs.

G. H., age 61, developed diabetes at age 57 years and required twenty units of protomine zinc insulin each day. The patient was controlled with insulin and she was well controlled with orinase®. The blood sugar levels ranging at 120 mgs. per cent. Her maintenance dose was four grams. Her starting weight was 152 and her finished weight 138 lbs.

J. M., developed her disease at age 57; duration of disease was twenty years; insulin requirements, ten units of PZI. Patient was well controlled with insulin. She was easily controlled with orinase® on a maintenance dose of one gram, blood sugar levels ranged at 90 mgs. per cent. Starting weight to finished weight—138 lbs.

S. S. developed diabetes at the age of 55 years. The duration of the disease was ten years. The patient was never balanced on insulin treatment. Her blood sugar levels ranged from 210 to 260 mgs. per cent. Although the patient improved with orinase®, she was not balanced. She then developed cystitis. With a combination of twenty units of protomine zinc insulin per day and four grams of orinase® per day, the patient's blood sugar levels remained normal. After the infection subsided, the protomine zinc insulin was discontinued and the patient was maintained on four grams of orinase® with normal blood sugar levels during the remaining portion of the trial period. She had a long standing diabetic retinitis which did not seem to improve during the orinase® therapy. Her original weight could not be measured because of mental agitation. The

finished weight, however, was 142 lbs. There was no apparent weight loss.

E. H. developed diabetes at the age of 57. Her disease was present for eighteen years. She required ten units of PZI a day and was well controlled except for some escape periods. Under insulin therapy blood sugar ranged between 110 and 120 mgs. per cent. She was well controlled on orinase® with a maintenance dose of 1.5 grams per day. Her blood sugar levels ranged at 86 mgs. per cent. Her starting weight was 116 lbs. and her finished weight was 117 lbs.

M. Z., aged 82. The disease developed at 79 years and was present for three years. She required twenty units of lente insulin per day. She was well controlled on insulin and also well controlled on orinase®, using a maintenance dose of one gram per day. The blood sugar levels ranged at 100 mgs. per cent. Her starting weight was 154 lbs. and her finished weight was 156 lbs.

Results

With orinase® treatment no evidence of toxicity was found. Laboratory studies showed no adverse effects upon the blood or kidneys. Actually, in many of the patients there was an improvement in the cephalin flocculation reports. (See Table 2). The reason for improvement is unknown. It is recognized that our

series is small but in our opinion when orinase® is used in the elderly diabetic there is a tendency towards improvement in this particular test. There were no indications of skin, gastrointestinal, or neurological toxicity. In one patient there was clinical evidence of a mild hypoglycemic reaction. This was characterized by transitory pallor, sweating and tachycardia. It did not require carbohydrates, lasted for only a short time, and was seen by the nursing staff. A reduction in maintenance dosage answered the problem. It can be noted that our maintenance dose showed considerable variation and was higher than that usually employed by the German physicians. However, even on the maintenance dose of four grams, there was no evidence of toxicity. The increase in the maintenance dose may be explained by the type of patient observed. They were mental patients who were disturbed and had an inclination to steal food and who lived on a State diabetic bill of fare.

In our series of patients there was no correlation between the insulin requirements and the maintenance orinase® dosage level. This can readily be examined in Table 1. In fact, the insulin levels failed to predict either orinase® dosage or the ultimate outcome of the treatment. These findings coincide with previous reports.

The drug had no effects on any of the diabetic arteriosclerotic vascular complications. Our patient with diabetic retinopathy did not improve during the three month period of treatment but they were chronic cases of retinopathy of many months duration.

Two of the patients developed acute infections during the course of treatment. One had an infected parotid gland and the other developed cystitis. In both cases orinase® did not control the diabetes during the course of the infection. They responded to the combination of orinase® and insulin. After the infections were eradicated by antibiotics the patients were again balanced on orinase® with successful results. It is interesting to note that these patients re-

TABLE 2
Effect upon Cephalin Flocculation Test

Patient	Before Therapy	After Therapy
1. M. S.	Negative	Negative
2. C. W.	Negative	Negative
3. M. Q.	+++	Negative
4. B. M.	+	Negative
5. K. M.	Negative	+
6. K. F.	+++	Negative
7. M. B.	+++	Negative
8. A. L.	Negative	++
9. E. H.	Not Done	+
10. A. F.	+++	Negative
11. G. H.	+++	Negative
12. J. M.	Not Done	Negative
13. S. S.	++	Negative
14. E. H.	++	Negative
15. M. Q.	++	++

quired less insulin during the course of the infection than they were using before the orinase® program was started, and before the infections developed. In the series of fifteen patients five, who could not previously be controlled to normal sugar levels with insulin, were completely balanced with orinase®. In one patient the balance could not be approximated with insulin but the patient was completely controlled with orinase®. In one case both insulin and orinase® were unsuccessful independently but were successful in combination. The remaining cases were equally balanced by orinase® or insulin. Therefore, orinase® proved to be the equivalent or better than insulin in these fifteen elderly diabetics treated over a three month period.

Acknowledgement

I wish to express gratitude to Mrs. Nettie B. Lord, R.N., who was the graduate nurse in charge during the course of treatment of these patients; for the assistance of Mr. McKinney and his laboratory staff for their excellent help in the many clinical laboratory determinations

and finally for the encouragement of Dr. I. Tuerk, Superintendent, Dr. G. Williams, Clinical Director, and Dr. A. A. Kurland, Director of Medical Research.

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MEDICAL LECTURE TOUR TO ASIA

The Asia-Pacific Academy of Ophthalmology is sponsoring a good will tour to Oriental countries following the International Congress of Ophthalmology in Brussels in September 1958. The tour will last about a month and it is intended to hold joint meetings with ophthalmologists in Pakistan, India, Thailand, the Philippines, and Hong Kong. It is expected that the tour will create much interest among doctors in the countries visited and will make a great contribution to American-Asiatic medical rapprochement.

The Asia-Pacific Academy of Ophthalmology was organized in 1957. Its principal purposes are: To extend ophthalmologic knowledge and to advance the arts and related sciences in Asia and in countries bordering on the Pacific . . . to stimulate research in tropical and systemic eye diseases . . . to cultivate the social and fraternal relationships of physicians living in Asia, . . . and to offer postgraduate instruction in ophthalmology through the medium of lectures, round-table discussions, seminars, clinics, films and by other means.

Physicians, other than ophthalmologists, and their families are also invited.

For information regarding the postgraduate lectures and seminars on medical subjects pertinent to ophthalmology contact: Dr. William John Holmes, Liaison Secretary, Suite 280, Alexander Young Building, Honolulu 13, Hawaii. For transportation information contact: Compass Travel Bureau, 55 West 42nd Street, New York 36, New York.

THE EVOLUTION OF PUBLIC HEALTH AND PREVENTIVE MEDICINE AS A MEDICAL SPECIALTY*

ERNEST L. STEBBINS, M.D.†

The prevention of disease was one of the earliest and has been one of the most consistent hopes of the human race. Long before the advent of anything that resembled the Science of Medicine, man sought means of protecting himself against disease and disability. In the absence of scientific knowledge, mystic or religious rites were performed in the hope of preventing disease. With the painfully slow advance in the knowledge of disease, irrational and even harmful methods were not infrequently employed.

As the communicability of certain diseases became apparent, serious efforts were made to protect the individual by avoiding any contact with others suffering from disease. During the Middle Ages, quarantine against the epidemic or pestilential diseases seemed the only method of protecting a person, a group of persons or a nation, against these diseases. In the case of the pestilential diseases, fear was a primary, motivating factor and the use of quarantine measures were frequently fantastically rigid and even brutal.

With the development of the science of bacteriology or microbiology and the rapidly increasing knowledge of the etiology of disease in the nineteenth century, it was possible to institute rational and effective methods of disease prevention. At least for some time, the demonstration of the bacterial etiology of infectious diseases increased the enthusiasm for quarantine measures. However, as knowledge increased, not only of etiology but of methods of immunization against certain diseases, this knowledge led to the establishment of more and more generally applicable, scientifically sound methods of disease prevention.

* Presented at the 158th Annual Meeting of the Medical and Chirurgical Faculty of Maryland, May 3, 1956.

† Director, The Johns Hopkins University, School of Hygiene and Public Health.

Further advances in knowledge demonstrated the different methods of transmission of infectious disease and the means of prevention of transmission and, in time, stimulated the development of mechanisms for protection through control of the environment. The combination of the application of the knowledge of bacteriology, immunology and environmental controls became such an effective mechanism for the prevention of disease that these measures were to a greater extent established as functions of government. Nations, states and cities began to establish programs for the protection of the health of the population. As might be expected, physicians were called upon, with increasing frequency, to advise, participate in, or direct these efforts. Until the middle of the nineteenth century these services were provided by leading physicians in the community when called upon, usually on a quite informal and temporary basis. Interest tended to wane as epidemics passed and lessons, learned through sad experience, were too often soon forgotten. So that, until the latter part of the nineteenth century, no continuing or consistent medical direction was given to the problems of the health of the community.

During this same period, great social changes were taking place. Industrialization in western Europe and the United States was progressing rapidly and with it urbanization. These both created new health problems and accentuated old problems. Slums were created in rapidly growing cities and previously adequate facilities for housing, water supply, sewage disposal, and other necessary provisions for the city dweller, were taxed beyond capacity. New and more serious health problems were created.

Acute infectious diseases—such as diphtheria, typhoid fever, smallpox and dysentery—reached epidemic proportions. Tuberculosis and vene-

real disease became, or were recognized as, important causes of death or disability. Infant and maternal mortality rates increased and were recognized as an intolerable wastage of human life and community strength. Faced with these serious health problems, nations, states and cities turned again to the medical profession for help and guidance. Boards of health and departments of health were created, and doctors were called upon to devote their time and energy to the solution of the health problems, not of individuals, but of populations. The physician faced with these responsibilities, of necessity, had to draw on other disciplines to effectively deal with the problems at hand. The clinician diagnosed illness in the individual by means of a history, physical examination, and the use of available laboratory aids, and prescribed the treatment indicated. The Public Health physician, in the determination of the health problems of a population, employs comparable methods, but special techniques. As the clinician delves into a patient's history, the Public Health officer laboriously accumulates evidence of previous illnesses from vital statistics and utilizes the science of biostatistics in interpreting this evidence of the health of a community. Direct observation of the health of a community may be obtained by such techniques as the morbidity survey, or by screening or sampling studies.

In determining the nature of a health problem in the population, particularly as related to specific diseases, it is necessary to study the natural history of disease, not in an individual, but in a population. The Public Health physician, in meeting his problems, drew upon the science of epidemiology—a valuable tool not only in the study of infectious diseases but in all disease problems within a population.

In confirmation of diagnosis, laboratory aids are of inestimable value and the program for prevention of disease in the population requires the development of these facilities. One of the earliest and most important activities of the Public Health physician was the development and administration of laboratory services.

In certain disease problems of populations more direct observation was required and methods of determining the presence or potential presence of disease required the application of specific tests. In dealing with diphtheria, for example the immunity status of the population is of importance in determining the methods necessary for preventing the disease. Mass testing, by use of the Schick test, to determine immunity was once a useful and practicable procedure in measuring the problem and developing a program for control. Under certain circumstances, the measurement of tuberculosis infection in the community by means of the tuberculin test was of value in determining the extent of the problem and in charting a course of action. With increased knowledge and improved techniques, it became possible to judge the extent of certain health problems by mass surveys, such as the small x-ray for the detection of tuberculosis and the serological survey for the detection of syphilis. These techniques, applicable in community medicine or public health, reached a level at which the need for special training facilities for the Preventive Medicine and Public Health practitioners became apparent. Graduate Schools of Public Health were provided for the specialized training of the physician preparing himself for these specific duties. This training in the early days of the Schools of Public Health included, among other subjects, Public Health Bacteriology, Parasitology, Biostatistics, Epidemiology and the rudiments of Public Health Administration.

The concept of health supervision, or health maintenance, particularly for certain groups of the population, advanced rapidly during the first quarter of the present century. This concept originated not primarily in the field of Public Health, but was pioneered in the clinical specialties, particularly in pediatrics and obstetrics. The application of Preventive Medicine techniques in these specialties, and the development of the concept of continuing health supervision and maintenance, was so firmly established, that as a result of public demand, these facilities

were developed, and the application of this principle was undertaken by health departments. Facilities were provided by the health department for health maintenance programs, particularly for infants and children, and for pregnant women. Well-child clinics, pre-natal clinics, and post-natal clinics providing a continuing health supervision, became standard parts of the developing health departments.

An added area of activity in the health field in many communities resulted from the concern of society with the provision of medical care for the indigent. The health department, having become established as a governmental agency dealing with medical matters, was not infrequently called upon to render this additional service. With few exceptions, this was not strictly speaking a Preventive Medicine program; although a soundly conceived medical care program had as a major component prevention of disease in the group served. For the most part, these responsibilities were placed upon the health department solely because there was no other unit of government primarily oriented to medical problems.

As the infectious diseases of childhood have become less and less of a problem and as tuberculosis and venereal disease have tended to come under control, there has been, in recent years, an increase in life expectancy. The present high life expectancy in the United States, now approximately seventy years at birth, could not have been dreamed of at the beginning of the century. The reduction in mortality in the younger age groups, together with the tremendous advances in therapy made in recent years, has resulted in a progressive aging of the population which creates additional and new problems. The relatively large proportion of the population living to the seventh and eighth decades emphasizes the community health problems in the chronic diseases of old age, particularly heart disease, cancer and diabetes. The extent to which these causes of illness and disability have increased is a matter of great concern, not only to the health officer but to all

of society. There is general recognition that the care of the chronically ill and the aged constitutes one of the most serious problems of modern society. The health officer is concerned with this problem, both from the standpoint of the provision of necessary care for those otherwise unable to cope with the problem and from the standpoint of early detection and secondary prevention in those diseases where this is a feasible approach. For this reason, the health officer devotes an increasing proportion of his energies to the administration of chronic disease hospitals, rehabilitation facilities and the planning and coordination of other community services in the care of the chronically ill.

All of this is a far cry from the responsibilities of the health officer of only a few decades ago. The administration of a program of Preventive Medicine and Public Health in our modern society has become a complex administrative problem. The specialist in Preventive Medicine and Public Health must, in addition to his knowledge of the basic causation of disease, have knowledge of quantitative methods in the study of disease problems and the special disease characteristics. He must be an accomplished administrator of, not infrequently, a large and complex organization. In order to provide training for the specialist in Preventive Medicine and Public Health, Schools of Public Health have constantly broadened the scope of training in an attempt to meet these many and varied needs. In addition, there has been the development of the concept of a residency in Public Health and approximately fifty such residency programs have been developed in the United States. Residency training programs in Public Health and Preventive Medicine are designed to provide training in this specialty comparable to that provided in the hospital for the clinical specialist. In order to be approved by the Council on Medical Education and hospitals of the American Medical Association a residency training program in Public Health must present evidence of adequate facilities and competent, trained personnel to direct the educational

program. The program of training involves experience, under close supervision, in all of the aspects of the administration of the modern public health program. The Resident is provided with an opportunity for assuming increasing responsibility; during the second year of the residency. The third year of the specialty training program, he may assume responsibility, under direct supervision, of the operation of certain functions within the Department of Health.

In 1949, after a review of the training facilities which had been developed, the Advisory Board for the Medical Specialties and the Council on Medical Education and Hospitals, through their joint committee, approved the creation of a Specialty Board in the field of Public Health. The functions of this Board are primarily to improve the standards of training in the academic program and in the Residency training program for the specialist in this field of Medicine.

It was recognized from the beginning of planning for training in Public Health and Preventive Medicine that certain aspects of the field were rapidly developing and even more specialized training was indicated in certain fields. During World War II, with the rapid development of aviation as a means of military operation, with tremendous advances in the construction of aircraft, and particularly with the wide dispersion of military personnel throughout the world, special problems in Preventive Medicine were encountered. This was especially true with regard to the maintenance of the health of flying personnel, both on the ground and in the air. The primary concern of Preventive Medicine in relationship to aviation had, in the early days, been that of health supervision of a group of men in an unusual environment. These conditions differed partly because of the dispersion of military personnel throughout the world, mainly in areas of unusual and particular health hazards, but also because of the unusual environment created by flying. The great strategic importance of the air services emphasized the necessity of maintaining a flying force of maxi-

mum physical efficiency. The maintenance of maximum efficiency of the air crews drew upon the same technique and skills developed in Preventive Medicine. Also, there were many problems arising from the conditions under which fliers operated, especially speed and altitude. With improvements in aircraft construction, important problems of acceleration, deceleration, temperature, oxygen deficiencies and other factors in the upper atmosphere required specialized skills and techniques. For this reason programs in Aviation Medicine were organized to train those who were to specialize in this field. Academic training in this branch of medicine has since been developed in a number of military and civilian institutions in this country. In addition to the academic training in Preventive Medicine in Public Health and in Aviation Medicine, a Residency training program, with a minimum of one year, has been developed in this field of Preventive Medicine.

In 1952 the Advisory Board for the Medical Specialties and the Council on Medical Education and Hospitals approved the training program in Aviation Medicine. The requirements are a minimum of three years of academic and residency training, with certification after six years of training and experience in the field of Aviation Medicine as a branch of Preventive Medicine.

Interest in the problems of Industrial and Occupational Medicine, originally considered within the scope of Preventive Medicine, has greatly increased. This interest developed during World War II because of the importance of industrial production and the necessity for maintaining the worker's efficiency at the highest level. For many years there has been a growing fund of knowledge of the methods of maintaining industrial workers' health. This was greatly augmented during the war and immediately afterwards. Special problems of concern to Preventive Medicine in industry include abnormalities of air pressure, ventilation, temperature and humidity controls, illumination and radiant energy, noise, fatigue, dust, fumes

and gases, poisons, infections and dermatoses, trauma, and disease in general. Because of the nature of part of the training required by the physician wishing to specialize in Occupational Medicine, training programs have been established in some civilian institutions and in military installations to add to that provided in Preventive Medicine and Public Health. These programs, for the most part, consist of two or three academic years of postgraduate training in the field followed by a one or two year residency type of training in an industrial medical organization. A review of these educational programs by the Council on Medical Education and Hospitals, in 1955, resulted in approval of the training program and authorization for certification in the specialty of Occupational Medicine.

Summary

Preventive Medicine has developed, as have other fields of medicine, from a limited and almost primitive application of knowledge of the prevention of disease to an increasingly complex body of knowledge, specific to a certain degree but drawing upon other medical specialties and other disciplines not primarily related to medicine. As medical knowledge has increased, the application of this knowledge to the protection of the health of groups of the population has been rapid and extensive. As special health problems were recognized in specific groups, special techniques were developed for the application of preventive measures to these specific problems.

In recent years, industrial and technological

developments have created new and strikingly different health problems for certain groups of the population. Disease prevention and health maintenance are the basic components of the specialty of Preventive Medicine. These components are common to all of the specially developing fields and, in addition, certain highly technical aspects have been added in the care of the health of certain groups. At the present time, therefore, the specialty of Preventive Medicine can be said to have evolved into three related but, to a certain extent, independent disciplines in the field of medicine. Public Health applies Preventive Medicine to the over-all problems of a civilian society, emphasizing general health maintenance and the administration of programs of medical care for low income groups, with special attention to the study of the prevention of chronic disease. Aviation Medicine deals with the problems of Preventive Medicine and the maintenance of health of a particular group or population subjected to unique environmental hazards inherent in the operation of aircraft. Occupational Medicine concerns itself with the Preventive Medicine problems of a specific group of the population and particularly is concerned with the dangers to health created as a result of technological advances in our rapidly developing industrial organization. The three related disciplines are based on the common foundations of the basic concept of Preventive Medicine.

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HOSPITALIZING THE PSYCHIATRIC PATIENT

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The purpose of this article is to review the facilities available in Maryland, both public and private, for specialized treatment of psychiatric illnesses, and the manner in which to gain admission to these hospitals. I have tried to avoid complicating this essay with too much detail. More specific information on any matter, may be obtained from the Department of Mental Hygiene, which has a brochure available.

I. Facilities Available

Public:

1. *State:* The four State hospitals are segregated for adults. All colored patients go to Crownsville. White patients from the Eastern Shore are admitted to the hospital at Cambridge. Those from the Western counties and half of Baltimore City are admitted to Springfield. Those from Baltimore County, the remaining half of Baltimore City and the central area of Maryland go to Spring Grove. For Allegany County patients, the County Commissioners operate "Sylvan Retreat" as a public mental hospital. It is, therefore, the residence of the applicant which determines to which of the hospitals he should be admitted. In addition, all white psychotic tuberculous and adult epileptic cases from the entire State are sent to Springfield.

The admission procedure consists of the presentation of separate certificates from two doctors (who have practiced for five years and are fully licensed to practice in Maryland), accompanied by a maintenance and support order certificate from the County Commissioners or

the Department of Public Welfare, as the case may require. Court and voluntary commitments must also be accompanied by a certificate of residence. The County Commissioners or the Department of Public Welfare will immediately contact the admission office at the State hospital involved. Emergency admission (at night or on week-ends) can be accomplished by contacting the proper hospital directly, provided two physicians' certificates already have been obtained, and there is a written request by a friend or relative. If the patient is under 16 or over 65 years of age, the State Hospital may require a pre-admission interview with the family.

Admission of children to Rosewood is a more complicated procedure because of pre-admission interviews with the patient and family. The family must make application in writing to the Superintendent of Rosewood.

2. *Veterans Administration Hospitals:* The veteran, in order to gain admission, must have a "service connected" nervous disorder, or else must declare himself indigent. Although emergency admissions are taken directly by Perry Point Hospital, the routine is to go through the admitting officer at the Regional Office, St. Paul and Fayette Streets, Baltimore, Maryland. The Veterans Administration will send for the patient. If a bed is not available, the patient is temporarily admitted to a State hospital. Eligible veterans, who are not service connected, are

admitted only if a bed is available—and this is not usual.

Private:

In addition to the two psychiatric facilities associated with the medical schools in Baltimore (Phipps Clinic and University Psychiatric Institute) there are nine licensed approved private psychiatric hospitals (Athol, Brook Lane Farm, Cedarcroft Sanatorium, Chestnut Lodge Sanitarium, Laurel Sanitarium, Riggs Cottage Sanitarium, Seton Institute, Sheppard and Enoch Pratt, and Taylor Manor Hospital). Two of these (Brook Lane Farm and Taylor Manor Hospital) are non-segregated. In order to obtain a bed, one calls the Resident or the Medical Director.

II. Technical Details of Admission

1. *Voluntary:* (a) No special papers are necessary for admittance. In a number of private psychiatric hospitals, a patient may admit himself, much as he would to a general hospital, without signing any particular agreement if he goes to an unlocked building. (b) A voluntary agreement for treatment may be signed by the patient. Under this arrangement the patient promises to give the hospital three days notice in writing should he desire to leave. This prevents impulsive decisions to interrupt treatment and also allows time to contact the family and arrange for commitment if this seems indicated. There is a separate agreement for the admission of minors (under the age of 18) which is signed by the parent.

(c) Voluntary court commitment of inebriates, enables anyone who is a relative or friend of an habitual drunkard to petition the Court for

admission to a State hospital for the medical treatment for drunkenness. It must be certified that they are not financially able to incur the expense, and that the patient is willing to attend such an institution for treatment. Three local tax payers need to certify as to the facts. This same type of procedure may be used for private hospitals provided the patient or family pays the bills.

2. *Involuntary* (a) Commitment certificates: These, as well as other forms mentioned, may be obtained from the Department of Mental Hygiene, 2218 North Charles Street, Baltimore, Maryland. These certificates should be signed by two physicians in practice for more than five years and fully registered to practice in the state of Maryland. The physicians must complete the certificates within one week after examination of the patient. These certificates are good for thirty days after examination. The examining physicians must not be related by blood or marriage to the patient, nor connected with the hospital in which it is proposed to place the patient. As mentioned above, these two certificates are then taken by the family to the County Commissioner, or the Department of Public Welfare, where a maintenance and support order slip is issued and the family is told to which hospital the patient is to go. If private involuntary hospitalization is desired, the family needs only the two commitment certificates. There are some private hospitals which will accept the patient on the family's written request for commitment on an emergency basis. They then allow two outside physicians to immediately examine the

patient and fill out the commitment certificates just after admission.

(b) Involuntary court commitment of inebriates (includes both alcohol and drug addicts): The Circuit Court may be petitioned to arrest and bring to jury trial any person alleged to be a drug or alcohol addict. If the patient does not voluntarily agree to enter an institution by appointing his own committee, the Court may appoint a committee which has the power of confining the patient to a suitable institution (public or private) for such length of time as the Court approves.

Finances:

1. *Public hospitals:* If the patient is indigent he pays nothing, but if financially able, the city or county will collect up to \$116.00 per month; the exact amount being determined by the ability of the patient or his family to pay.
2. *Private hospitals:* The rate varies, but averages from \$75.00 to \$125.00 per week. Most hospitals require an admission fee which covers the first two to four weeks' care. It is usually preferred that the family, rather than the patient, pay the bills as in many cases this prevents the patient's attempting to control his therapy with his pocketbook.

(a) Blue Cross: In Maryland there is effective through the "standard" Blue Cross plan, partial coverage for nervous and mental illness (including alcohol and drug addiction). Eligible subscribers are entitled to receive a credit of up to \$12.00 per day toward the usual charges of the hospital for not more than twenty days of care per hospital confinement. This is applicable to the li-

censed private psychiatric hospitals. The benefits are available only once in each twelve month period (figured from discharge date of last hospitalization).

There are several Blue Cross special industrial plans which give slightly different coverages.

(b) Commercial hospitalization plans: Many of these, including those under contract to certain industrial concerns, cover partial payment for private psychiatric hospitalization.

III. Accomplishing the admission

None of the hospitals, either public or private, will go to the patient's home for him except for an emergency Veterans Administration admission. It is therefore necessary either for the patient to transport himself to the hospital, or for the family to take care of these arrangements. If the latter is necessary, it is better to discuss the details of hospitalization only with the family, since discussion with the patient can only tend to worry him needlessly. It is usually best, however, not to attempt to deceive the patient. If one does not tell him the entire truth, at least nothing should be said that can later backfire on the family or the doctor. Only in rare cases is it necessary to use some subterfuge, such as telling the patient that he is going to the hospital solely for an examination on an out-patient basis. After this is accomplished the doctor could then indicate to the patient that it has been found necessary for him to stay for treatment.

At times sedation of a disturbed patient is necessary. If he will take oral medication, three to six grains of seconal or nembutal are effective. If injection is required, then $7\frac{1}{2}$ gr. of Sodium Amytal i.m., or a hypodermic of hyoscine $\frac{1}{50}$ grain should be given. An intramuscular injection of an

ampule of one of the tranquilizers (Tri-lafon®, Thorazine or Serpasil) will frequently be desirable. Paraldehyde in successive doses of $\frac{1}{4}$ to $\frac{1}{2}$ ounce is useful for alcoholics. The administration of narcotics such as demerol or morphine is never indicated and rarely helpful.

If the family feels unable to transport the patient for emotional or physical reasons, they will find most of the ambulance companies experienced in this matter. Two ambulance attendants are usually well able to handle even the most difficult situation. One should avoid calling the police, but if this should become necessary, the family can swear out a warrant for disturbing the peace and the patient will be arrested on this technicality and transported to the door of the hospital.

Most patients wear their own clothing, as they are not confined to bed. The length of stay varies from a few days to a few

months. The average for a severe psychosis is three to four months, which includes an adequate convalescent period. It is best not to promise the patient a definite length of time in the hospital, but rather to tell him that after his initial two weeks, it can be determined if further hospitalization is indicated.

If the physician is familiar with the facilities available, he should have no difficulty hospitalizing any patient from a mild neurotic to a severely disturbed psychotic. Due to the more rapid rate at which patients are now being improved and discharged from psychiatric hospitals, one is invariably able to find an accommodation. The State hospitals do not refuse a properly certified patient, and if a private facility can be afforded, one is certain to locate an available bed.

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THE MANAGEMENT OF MISSED ABORTION WITH HYPOFIBRINOGENEMIA

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It is the purpose of the authors to crystallize the management of missed abortion in view of the recognition of hypofibrinogenemia as a possible complication whenever a dead conception is retained for long periods of time. In addition, certain theoretical concepts of prophylaxis and treatment are discussed. Although low maternal fibrinogen levels are often reported as a complication of intrauterine fetal death with retention, this has seldom been observed in gestations of less than sixteen weeks. Usually the fetal death occurs from the 16th to the 24th week and hypofibrinogenemia does not take place until after five weeks retention (4, 5).

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The earliest reported gestational age of a retained dead fetus associated with hypofibrinogenemia is evidently that reported by Charles (6), which was probably of twelve to fourteen weeks gestation when fetal death occurred. Two cases of missed abortion with evidence of maternal hypofibrinogenemia are described.

CASE I

R. E., #005-6-32, a 32 year old negro female (gravid 4, para 4) was admitted to the obstetrical service, on August 26, 1957, because of a suspected intrauterine fetal death. The patient's family history and past medical history were not significant. Between 1950 and 1956 she had four pregnancies. The first of these was complicated

BASIC MECHANISMS OF COAGULATION

• 3 REACTIONS •

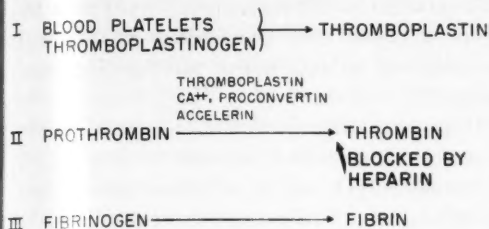
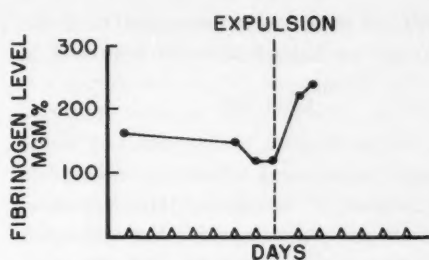


FIG. I

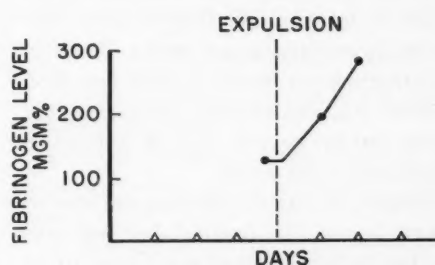
by mild toxemia. The first three deliveries were vaginal, but the fourth pregnancy was terminated by cesarean section because of partial separation of the placenta. She was first seen in the obstetrical clinic on May 2, 1957. The last menstrual period was February 15, 1957, and the estimated date of confinement was November 22, 1957. No abnormalities were detected on her initial examination. The uterus was felt to be compatible with an eight week gestation. Laboratory studies revealed the blood type to be O, Rh positive, the serology to be negative, and the hematocrit 35 mm. Chest x-ray was normal.

On July 18, 1957 it was felt that the growth of the uterus was not sufficient for the duration of pregnancy, and a missed abortion was suspected. On August 12, 1957, the patient was re-evaluated and no further growth of the uterus was noticed. The size of the uterus remained compatible with twelve weeks gestation. At this time there was no evidence of expulsion and the cervix was closed. On August 19 a fibrinogen level was obtained and reported as 165 mgms. per cent.† A pregnancy test (Frog) was done and was negative. The patient was hospitalized on August 26, 1957.

On admission she was noted to be a well-developed, rather obese, colored female in no acute distress. The pertinent physical findings were limited to the abdomen and pelvis. There was a healed low midline surgical scar and the uterine fundus was palpable three finger breadths above the symphysis. On pelvic examination

MISSED ABORTION-RETAINED 10 WEEKS
CASE NO. 1

a

MISSED ABORTION-RETENTION UNKNOWN
CASE NO. 2

b

FIG. II

the cervix was soft, undilated, and the uterus was enlarged to the size of a twelve week pregnancy. No adnexal pathology was detected. Laboratory work on admission revealed the hemoglobin to be 14 grams, the clotting time to be six minutes, and the fibrinogen level 154 mgms. per cent. The urinalysis was essentially negative.

On the following day, the fibrinogen level was 132 mgms. per cent. This was repeated the next day and was found to be the same. There was no alteration of the blood chemistries, including liver function tests. On August 28th the patient began to have painful uterine contractions and two hours later expelled a 325 gram, dead, macerated fetus. The initial blood loss was 200 c.c. Blood pressure was 130/80. The patient experienced no further hemorrhage and the day following delivery the fibrinogen level was 220 mgms. per cent. This rose still further the next day and was 245 mgms. per cent. The remainder

† Parfentjev's Method of Fibrinogen Determination.

of her hospital course was uneventful and she was discharged on August 30th. See Figure II, a.

CASE II

R. L. L., #141-5-95, a 15 year old nulliparous negro female was admitted, on October 28, 1957, because of convulsions. Her last menstrual period was July 10, 1957; her estimated date of confinement was April 17, 1958. Physical examination revealed hypertension, albuminuria, and a uterus enlarged to the size of an eighteen week gestation. The first impression was possible hydatidiform mole with acute toxemia. The pregnancy test was negative, however, and a roentgenogram revealed evidence of a fetal skeleton. All symptoms of toxemia rapidly disappeared and the patient was felt to have an early intrauterine fetal death.

On November 25, vaginal bleeding and uterine contractions began. The clotting time was normal, but the fibrinogen level was found to be 136 mgms. per cent. The patient spontaneously aborted a macerated fetus, which weighed 85 grams. The placenta weighed 142 gms. In the post-abortive period, the patient had a significant vaginal hemorrhage of 700 cc., but at no time was there any evidence of abnormal blood coagulability. The management consisted of blood transfusions and oxytocin. The hemorrhage was controlled without resorting to the use of fibrinogen.

On November 26, the fibrinogen level had risen to 186 mgms. per cent, followed by a further rise to 275 mgms. per cent on the subsequent day. The patient was discharged on November 29, 1957. See Figure II, b.

DISCUSSION

Missed abortion was originally described by Matthew Duncan (6), in 1878. The definition put forward by Litzenberg (10), notes that "it is a dead fetus prior to viability in which there is no maternal effort at expulsion after two months retention." In an analysis of 80 cases of abortion Kinch (7) found the average fibrinogen level before twelve weeks of gestation to be 375

mgms. per cent. In abortions between twelve and twenty weeks of gestation the average level was found to be 420 mgms. per cent. The latter figure is higher than the average in a normal pregnancy of eighteen weeks, which is 275 mgms. per cent.

Hypofibrinogenemia is felt to exist when the fibrinogen level falls below the arbitrary level of 150 mgms. per cent (8), although hemorrhagic manifestations usually do not occur unless the level falls below 100 mgms. per cent. Pritchard and Ratnoff (8) detected low fibrinogen levels in 8 out of 31 cases of dead fetuses retained for 3 to 11 weeks. The gestational age in these cases ranged between 12 and 36 weeks. Low levels of fibrinogen occurred only when retention of the dead fetus had been for more than 5 weeks.

In case report I retention was for a period of approximately 10 weeks. As described by other authors (8 and 9), there was a gradual linear fall of fibrinogen, rather than the precipitous one which is usually associated with abruption of the placenta.

The recognition of this complication in missed abortions has led to some change in the concept of management. Formerly it was generally believed safe to leave these patients alone for indefinite and prolonged periods. It is true that most cases of missed abortion will terminate spontaneously without incident. It has become necessary, when a dead conception of any age has been retained, to be on the alert for hypofibrinogenemia if conservative management is selected. This can be accomplished by obtaining fibrinogen levels at various intervals to be determined by the initial value. If the initial fibrinogen level is over 200 mgms. per cent, this may be followed at weekly intervals, unless a tendency to drop is detected. If the fibrinogen level is already below 200 mgms. per cent or becomes less than 200 mgms. per cent during observation, the determinations should be made on a daily basis. Should the fibrinogen level fall to the critical value of 150 mgms. per cent, energetic management is indicated. It has been repeatedly

demonstrated that removal of the products of conception is followed by rapid restoration of the maternal fibrinogen level to normal. The most obvious method of management, therefore, becomes emptying of the uterus. This may be accomplished by the use of medical induction with oxytocics, mechanical evacuation of the uterus, or in more advanced pregnancies it may become necessary to perform hysterotomy. The efficacy of estrogen therapy in bringing about spontaneous expulsion of missed abortions is still a matter of question (11).

If the patient's fibrinogen level is not permitted to go below 100 mgms. per cent, hemorrhage resulting from hypofibrinogenemia is unlikely. Therefore, it is usually not necessary to administer fibrinogen unless the level falls below 100 mgms. per cent or hemorrhagic phenomena occur. The use of fibrinogen is not without risk, since a significant incidence of homologous serum jaundice has been reported following its administration (14). In the event of marked lowering of the fibrinogen level or the presence of demonstrable incoagulability fibrinogen must be given intravenously. The usual amount required to adequately improve the situation is between 4 and 8 grams. This can be evaluated by clot observation tests and/or serial fibrinogen determinations. Supportive management includes adequate blood replacement, antibiotic coverage and intravenous fluids.

The most popular explanation advanced for the occurrence of hypofibrinogenemia is the depletion of maternal fibrinogen by intravascular coagulation. This is thought to be the result of liberation into the maternal circulation of a thromboplastin-like substance of placental origin (1, 2, 3). The three steps of the clotting mechanism are illustrated in Figure I. The reaction converting prothrombin to thrombin is accelerated towards thrombin by the amounts of accelerin, thromboplastin, calcium, and proconvertin present. This is opposed by the action of heparin.

If present theories are true, the disease entity hypofibrinogenemia is paradoxically the

result of a hypercoagulable state. This effect of abnormal thromboplastin may be prevented or minimized by higher blood levels of its natural opponent, heparin. Reactions II and III (in Figure I) could be retarded by the administration of heparin in small amounts. In this manner, perhaps, hypofibrinogenemia could be held in abeyance long enough for evacuation of the uterus to be completed.

Since the writing of this paper, the authors have given intravenous heparin to one patient with a missed abortion and hypofibrinogenemia. This was followed by a rapid elevation of the fibrinogen level.

SUMMARY

1. Hypofibrinogenemia must be anticipated in missed abortions.
2. Serial fibrinogen levels and clot observations are the means by which early diagnosis is made.
3. Evacuation of the uterus is followed by prompt return of maternal coagulation mechanism to normal.
4. In the face of evident declining fibrinogen levels evacuation of the uterus becomes the most important step in the prevention of hemorrhage.
5. In theory the progression of hypofibrinogenemia may be halted by heparin since it can negate significant amounts of thromboplastin.

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NEW APPROACHES TO THE TREATMENT OF PSYCHIATRIC DISORDERS*

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Since 1950 new drugs and surgical procedures have been developed for the treatment of emotional and mental aberrations. These new approaches to the treatment of psychiatric disorders are being used as adjuvants to psychotherapy and psychoanalysis or as substitutes for these in instances where they are not applicable or have not been successful. These recent physical methods of treatment offer new hope to the mentally ill since properly employed they can increase the number of patients who may be treated in the office, shorten the period of hospitalization, or make hospitalization unnecessary, thereby reducing the cost of psychiatric care.

Since the introduction of chlorpromazine and reserpine, psychiatric hospitals have reported a decrease in the use of physical restraints, seclusion rooms, hydrotherapy, shock therapy and other somatic methods of treatment; a reduction in destructiveness, combativeness, and assaultiveness; a greater number of ground privileges; and most important, an increase in the discharge rate, especially of chronic patients. Private practicing psychiatrists have found

these drugs useful in facilitating psychotherapy and in enabling them to treat a greater number of neurotic and psychotic patients outside of the hospital.

From experience with chlorpromazine and reserpine it is obvious that these compounds are most effective in tranquilizing patients suffering from anxiety, tension, agitation, and psychomotor excitement. Their beneficial effects are most striking in the acutely ill patient and least evident in chronic neurotics and psychotics with little or no overt disturbance.

There are two major categories of psychiatric patients whom the general practitioner is usually the first to see. These are the acutely disturbed patient with a sudden onset of a psychosis and the neurotic patient. The former almost always requires admission to a hospital. To accomplish this the physician is faced with the task of ushering the patient off to the hospital quickly and with the least possible disturbance. However, since many of these patients are resistive to hospitalization, it is frequently necessary for the family physician to call upon outside assistance, such as the police, to hospitalize the patient. The alternative is to "knock out" the patient with barbiturates or narcotics. Either

* Presented at the 158th Annual Meeting of the Medical and Chirurgical Faculty of Maryland, May 4, 1956.

alternative has many disadvantages which make each undesirable from the standpoint of the physician, the patient, and his relatives.

It is now possible to discreetly manage acutely disturbed patients by the prompt administration of adequate doses of chlorpromazine or reserpine. This can be accomplished by giving the patient 50 mgm. of chlorpromazine or 5 to 10 mgm. of reserpine i.m. If within an hour the patient is still disturbed a second i.m. injection of 50 mgm. chlorpromazine or 5 mgm. reserpine can be administered to the patient. This has a tranquilizing effect which facilitates the management and hospitalization of the patient without the need for outside assistance. In many instances the patient can be admitted to a general hospital or a nursing home for further treatment with chlorpromazine or reserpine. This "quiet" hospitalization is important to the patient, his relatives, and the physician.

The number of patients who seek treatment from the general practitioner because of anxiety is inestimable. These are the patients whose anxiety may be expressed symptomatically by sleeplessness, restlessness, aggressive outbursts, feelings of inadequacy, paranoid attitude, depression, irritability, psychosomatic disturbances, attacks of weeping, and feelings of inferiority.

The adroit physician is able to distinguish between those patients who require the services of a psychiatrist and those whom he can adequately treat when he has learned to use these ataraxic drugs. There is an art of chlorpromazine and reserpine therapy in which some physicians are more skilled than others. Many of the unusual successes with these drugs must be attributed to the abilities of the therapist whose persistence in the face of difficulty and willingness to take legitimate risks account for the patient's recovery. It is easy to carry out the treatment indiscriminately or to err on the side of overeasy discouragement and to attribute the therapeutic failures and unpleasant complications to the drugs alone.

In the treatment of the neuroses with chlor-

promazine and reserpine more attention must be paid to the symptoms and their duration than to the specific type of neuroses. Acute neuroses of recent origin in previously stable individuals respond more favorably than the chronic neuroses, except in rare cases. Pure anxiety and feelings of panic are controlled or eradicated by these drugs. Their timely use may avoid a neurotic breakdown in those who are exhibiting psychiatric symptoms under undue stress for the first time and may prevent many exhaustion states from becoming chronic neuroses.

Chlorpromazine and reserpine have been quite disappointing as a treatment for depressions. The majority of patients with an endogenous depression do not react well to these drugs. When there is a mixture of agitation or anxiety and depression these agents will decrease the agitation. However, such patients will improve more quickly with a combination of these drugs and electroconvulsive therapy.

The physiologic action of chlorpromazine and reserpine is such that they may enhance an existing depression or they may precipitate a depression in certain susceptible patients. This latter clinical fact has occurred with greater frequency with reserpine than chlorpromazine, particularly in middle aged or older patients who receive reserpine not for psychiatric reasons but for hypertension. Chlorpromazine and reserpine induced depressions may or may not remit after discontinuation of the drug. In some cases electroconvulsive therapy has been required to relieve the depression caused by these drugs.

Many of the side effects to chlorpromazine and reserpine at first were judged serious complications and a definite contraindication to treatment. This is no longer so. The fear of possible development of hepatic damage with chlorpromazine has not materialized. The physiologic, neurologic, endocrine, and psychologic reactions to these drugs usually occur in the early stages of treatment. They may disappear spontaneously as treatment is continued or be controlled by the use of additional drugs. These

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reactions should not panic the therapist into prematurely terminating treatment. However, the safety of these compounds is not a justification for their indiscriminate use. Unfortunately, these drugs can be applied with such ease and convenience that they are being used on patients totally unsuited for them by physicians who supplant clinical judgment for expediency. It is this factor that accounts for much of the unwarranted criticism of these drugs.

There has been much critical discussion about the dosage and prolonged administration of chlorpromazine and reserpine. These drugs can only be effectively used if attention is paid to individual susceptibility to them. There are patients who require much more of a drug than others. The usual error is to give too little rather than too much or to terminate treatment prematurely. No physical harm results from prolonged moderate use of these drugs.

Many psychiatrists state that chlorpromazine and reserpine will replace psychosurgery. This has not been substantiated by clinical experience with these drugs. They have not been beneficial in depressive reactions, classical obsessive-compulsive neuroses, and many other chronic neuroses and chronic psychoses. Many patients who respond initially to chlorpromazine and reserpine later relapse and are resistant to further treatment with these drugs.

The relief from neurotic suffering that can be obtained from adequate psychosurgery is well recognized. However, psychosurgery for this purpose has seldom been employed in patients with fairly well preserved personalities, because of the personality changes, intellectual deficits, and convulsions that may follow the standard lobotomy operations.

In 1951 the Grantham commissurotomy was introduced. This is a new method of selective



FIG. 1



FIG. 2



FIG. 3

destruction of the ventromedial quadrants of the prefrontal lobe by electrocoagulation which has eliminated many of the undesirable effects of the lobotomy operations. In the past two years I have had seventy patients who have had a Grantham commissurotomy performed on them with excellent results in 70 per cent.

The technique of this operation is as follows: Under either local or general anesthesia, bilateral burr holes are made in the frontal area 6 to 8 cm. from the glabella and $2\frac{1}{2}$ cm. lateral to the midline. The frontal horn of each lateral ventricle is injected with 10 cc. of air. Insulated electrodes are inserted into the frontal lobe parallel to the sagittal sinus and anterior to the frontal horn of the lateral ventricle until they contact the floor of the skull. The electrodes are then withdrawn 2 cm. and their position checked by lateral and anteroposterior roentgenograms. If the electrodes are not parallel, or if the tip of either electrode is not in the correct position in the ventromedial quadrant, they are rein-

serted until their proper position is confirmed by x-ray (Figures 1 and 2). Electrocoagulation is then performed by turning on the current for 30 seconds at position 10 on the Universal Bovie electro-surgical unit.

In the immediate post-operative period (24 to 72 hours) most patients run a slight elevation of temperature up to 102 degrees. This rise of temperature is important prognostically since it occurred in most of the patients with a favorable therapeutic result. The majority of those patients with slight or no improvement did not have a post-operative elevation of temperature.

After recovery from the anesthetic the patients are mentally alert, and usually the benefits of the operation are apparent immediately. Psychiatric examination on the second and third post-operative days reveals an absence of confusion, disorientation, and retrograde amnesia, permitting an early evaluation of the patient's mental state. Impressive relief from anxiety and depression is observed in improved patients,

while little or no change can be detected in those who are unimproved.

In this series of patients no serious adverse personality changes occurred. There was no release of undesirable neurotic or psychopathic traits. In addition there have been no post-operative convulsions.

There are many advantages to the Grantham commissurotomy which makes this operation superior to conventional psychosurgery for neurotic suffering. This operation causes little destruction of the cortex. The lesion produced in the ventromedial quadrant is relatively small in contrast to the extensive area of destruction caused by conventional psychosurgery (Figure 3). This minimal damage to the cortex and the limited subcortical lesion substantially reduce the hazard of post-operative personality changes and convulsions.

Since the lesion in the ventromedial quadrant is small, it may not transect all of the fronto-thalamic fibers. The patient may only partially benefit from the operation. If necessary, the operative lesion may be enlarged by a second or third operation. Four patients in this study were unimproved after the first electrocauterization. A second operation produced moderate improvement in three and slight improvement in one.

Ventromedial quadrant electrocoagulation places little stress upon the patient's physical constitution. Physical disorders which would make conventional psychosurgery hazardous are not a contraindication to this operation. The patients in this study had a variety of cardiovascular and pulmonary diseases which did not increase the operative risk.

Psychosurgery is not a procedure of last re-

sort. It is a part of the total therapeutic program. It should be followed by psychotherapy and other rehabilitative measures. The rapidity with which a patient recovers from the Grantham operation, along with the absence of the psychic disturbances that follow standard lobotomy, permits the initiation of psychotherapy and rehabilitation in the immediate post-operative period. This is a decided advantage over other forms of psychosurgery.

Since the Grantham commissurotomy usually does not cause personality changes and the recovery period is so rapid, lengthy hospitalization and special nursing care is unnecessary. The patients herein reported were in ward beds. The majority were ambulatory on the second post-operative day and were well able to tend to their personal needs. All but five patients were discharged from the hospital on the third to fifth post-operative day. These factors make this operation economical, a consideration of prime importance to the private patient whose finances have been depleted by an expensive chronic illness.

These new approaches to the treatment of psychiatric disorders are the harvest of years of research. They have a limited but invaluable use in psychiatry. Each demand more clinical experience to define conditions in which they will be most advantageous. In the interim we must admit that besides their therapeutic properties they should contribute much to our knowledge and understanding of the physiologic and neurologic foundations of human behavior.

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ARTICLE OF INTEREST

SUGGESTED READING FOR MEDICAL STUDENTS AND YOUNG DOCTORS

AMOS R. KOONTZ, M.D.

It is pretty generally admitted that there has been a decline in the general culture of our leading medical men during the last forty or fifty years. How does one account for this? Possibly it is because the competition for places in medical schools has become so keen that it tends to make college students who expect to study medicine elect science courses and neglect the humanities. Medicine has become vastly complex and the very complexities of it are so absorbing, that unless doctors have, early in life, developed an interest in cultural subjects, such subjects are apt to be neglected in the busy hurly-burly of medical practice.

Forty years ago one never heard the term "pre-medical." There were always students in college who were going to study medicine. But they were in college to get the general education which was then considered necessary for the gentleman who was to become a doctor, because it was known that when he did become a doctor he would be expected to be a leader in his community, both culturally and medically. "Pre-medical" is a bad term. It has come to connote a type of student who buries himself in a study of the sciences in preparation for a technical field, while the true pre-medical education should have a much broader connotation.

Some of our medical schools have now become concerned about the woeful lack of a knowledge of the humanities among their students. They could very easily alleviate their concern and remedy the defect if, in the first place, they would specify in their catalogs that a certain number of courses in the humanities were prerequisite for entrance, just as they now specify that a certain number of science courses are entrance prerequisites. In the second place, they could accept only students from those colleges

which have demonstrated that they turn out men with a broad general education.

But even for those students who have had good training in the humanities, it has always been felt worthwhile, when they have become medical students, or young doctors, to direct their general reading to a certain extent; or if not to direct it, at least to give them friendly advice as to the broad general direction which the reading of a doctor should take, possibly as a little different from that of any other component of our culture. Hence this paper.

"What is one man's meat is another man's poison" is a maxim which has been repeated through generations. This maxim undoubtedly goes back to the *De Rerum Natura* of Lucretius in which he says "What to some is food, to others may be sharp poison" (*Quod aliis cibus est, aliis fuit acre venenum*). The origin of the more modern version is probably from Beaumont and Fletcher's "Love's Cure," in which we find the following lines:

"What's one man's poison, signor,
Is another man's meat or drink."

In quoting Beaumont and Fletcher, I cannot resist the temptation to repeat what John Aubrey (1626-1697) said of their partnership: "There was a wonderful consimilitude of phansey. They lived together not far from the Play-house, had one wench in the house between them, the same clothes, cloake, &c."

One would be presuming the impossible to expect all medical students and all doctors— young or old—to have as close a partnership, either intellectual or corporeal, as did Beaumont and Fletcher. However, if we approach the ideal and presume that the prospective medical student must be an educated gentleman before

he even considers aspiring to the dignity of sitting at the feet of Aesculapius, then one would expect that there would be some consanguinity of tastes in the matter of reading, even allowing for the maxim that one man's meat is another man's poison.

Undoubtedly the list of reading suggested here will be criticized by many. Of course, it is only a starter, so, naturally, there are many notable omissions. One immediately thinks of such gems as Lambert's *A Yankee Doctor in Paradise*, Victor Heiser's *An American Doctor's Odyssey*, Hans Zinnser's *As I Remember Him* and many others, but one cannot go on indefinitely and this is designedly a limited list. The young medical man, once he has been introduced to good reading from any list, will inevitably throughout his life select scores of good books to read, one leading to another, and will always begrudge the fact that he hasn't time to read more. Hardly any two doctors would pick exactly the same list. Many lists have been compiled. Osler in his *Aequanimitas and Other Addresses* furnishes a list of bedside reading. Many others have done the same thing. Any reasonable list is a good list because the average youngster just entering the broad field of medicine does not know what to read. Possibly no one will want to read everything on any list that is chosen. I personally would feel that I had been cheated if I had not been able to read any one of the works on the list I have prepared. Others may feel differently. As great as Osler was, and as much as I admire him, I cannot share all of his enthusiasms in reading.

For instance, I cannot share Osler's enthusiasm for the *Religio Medici* of Sir Thomas Browne, although it does make interesting reading in spots. Sir Thomas was a well-to-do physician who practiced medicine successfully in the town of Norwich, and who was knighted by Charles II. He was a devout Church of England man and said that he would be happy in no other church and in no other religion. He adhered to orthodoxy, but raised some doubts with regard to some of the church's dogmas. Although he believed that there was no salva-

tion except through Christ, he wondered (as do I) what happened to such fine men as, for instance, Socrates, and other worthies who died long before the Christian era. Poor old Socrates never had a Chinaman's chance to have Jesus in his heart or to have accepted him in any way. Indeed, he died long before His birth, and long before He was even a gleam in the eye of the Holy Ghost.

Sir Thomas made a sharp distinction between Divinity and Philosophy. He stated that although Philosophy was based on Reason, Divinity must be based on Faith, and his Faith led him to believe in those things about which his Reason raised doubts.

I always felt a little guilty about not being able to enjoy *Tristram Shandy* until I found that Samuel Johnson deprecated the work and said that it had deservedly lost favor in England. Johnson said: "Nothing odd will do long. *Tristram Shandy* did not last." Yet the book has been highly praised by many authors. Louis Untermeyer in his *A Treasury of Ribaldry* has included three pages on "How I Was Begot" from *Tristram Shandy*. I couldn't even work up very much interest in this, on reading it the second time. Maybe it was not quite lewd enough. Truly one man's meat is another man's poison.

All of the reading recommended here is general and most of it comprises things which every educated gentleman should read, whether he is going to study medicine or not. Even the medical things are of a general nature. Certainly the general should be taken care of before the special is attacked. In 1927 Dr. Raymond Pearl, who was one of the most brilliant men on the Johns Hopkins faculty, published a little book entitled *To Begin With, Being Prophylaxis Against Pedantry*. Dr. Pearl's book is charmingly written. He recommends a reading list of seventy books and after each title gives his reason for recommending that it be read. He does not include any of Plato's works in his list. He presumes, I suppose, that every educated man has read a certain amount of Plato as a part of his fundamental education. When I

first read Dr. Pearl's book, I had read nothing of Plato's except *The Republic*. I increased my reading of him after I read the following from Dr. Pearl: "Everybody who calls himself a man ought to read and reread Plato's *Euthyphro*, *The Apology*, and *Crito*. Socrates was undoubtedly a pest. Every right-thinking, forward-looking one-hundred-per-cent Athenian regarded him as a dangerous nuisance who ought either to be deported or killed, and preferably the latter. If he were in our midst today, he would meet a precisely similar fate at the hands of the Rotarians, Kiwanians, and other orthodox up-lifters, that he did from the Dikastery. And for two simple reasons. He was a superior man and he was aggressively attacking Fundamentalism. *The Apology* is perhaps the noblest document the human mind has ever conceived. In it there is to be found none of that oily, nauseating striving to reconcile superstition with science as mutually compatible ideas, which is so much to the fore today. The familiar premise that Socrates was a man is right. He *was*." I haven't looked up the dates, but Dr. Pearl probably wrote this soon after the famous "monkey trial" in Dayton, Tennessee, during which, if the defense did not succeed in proving that men are descended from monkeys, the plaintiff, represented by William Jennings Bryan, certainly succeeded in proving that some men *are* monkeys.

After reading Dr. Pearl's book, I immediately read *Euthyphro*, *The Apology*, and *Crito*. I was well rewarded and therefore have put them at the top of my list.

Certainly I think every man should be familiar with *The Republic*, but he can learn what is in it without reading the entire thing. (Jowett's *Analysis* might be enough for some.) To me parts of it were extremely tiresome. However, one is amply rewarded after reading through some of the somewhat tiresome dialogue of *The Republic* by occasional passages which are truly gems. For instance, Plato states that the true philosopher will never stop striving after knowledge "but will go on—the keen edge will not be blunted, nor the force of his desire abate"

in his quest until "he will have knowledge and will live and grow truly, and then, and not until then, will he cease from his travail."

But the idealism of *The Republic* is entirely unrealistic. If all men were ideal, then we could have an ideal State. Until that happens, it is entirely impractical to have a State in which no man calls anything his own. Modern Communism has shown us what that can be like. It has also shown us what can happen when marriage is given up. In Plato's state there was to be neither marrying nor giving in marriage. There were to be hymeneal festivals in which the mates were arranged by the guardians of the State. Certainly such matings would not always be happy ones. A modern professor walking across the campus one day with a student who had been using bad English, in explaining the difference between adjectives and adverbs, said to the student, "Now for instance look at that coed over there. I can look at her *sternly* or I can look at her *stern*." Unquestionably some of the mates in Plato's ideal hymeneal festivals would have looked at each other adjectively and some would have looked at each other adverbially. At any rate the resultant children were to be placed in a common nursery where the mothers went to nurse them without knowing which were their own children. All mothers and fathers would have many children and every child would have many parents. All of these children were to be brothers and sisters—some by blood and some not, but none would know which was which.

Kings were to be philosophers and philosophers kings. Certainly today kings and other rulers could stand knowing a little something about the philosophy of government. However, I know some philosophers (so-called) whom I would not like to see kings.

In forming his ideal State, Plato abjured democracy, which he described as "a charming form of government, full of variety and disorder, and dispensing a sort of equality to equals and unequals alike." I can't quarrel with his definition. Certainly democracy carried to the extreme, with its universal suffrage, is bound to

result in just such a state as Plato described. Macaulay, about one hundred years ago, said that the American democracy was bound to deteriorate sooner or later, because the baser elements in our population, which were in the majority, would eventually gain the ascendancy. We all know how nearly his prophecy has been fulfilled. But little did he reck (or if he did he did not say so) that the deterioration would come sooner and go further in his own country than it has in ours (so far at least).

With all of his idealism, Plato realized that the State would not always have ideal rulers. This is exemplified in his statement that "the State in which the rulers are most reluctant to govern is always the best and most quietly governed, and the State in which they are most eager, the worst." When I read this, I could not help thinking of George Washington's reluctance to govern, and the contrast between his administration and some of our more recent administrations, in which the Presidents have been so eager to rule.

The books about Washington and Lee I have included because I strongly feel that these two men are among the great characters of history with whom every American should be thoroughly familiar. If I had to select one man as the greatest of all the men who have ever lived, I would select George Washington. I believe that he is little understood among our people because they do not take the trouble to study his life. It must be remembered that George III never had a more devoted subject than George Washington until said sovereign started treating the future Father of our Country as a second-class Englishman. That he would have none of, and once he decided to break away from the mother country, there was never any looking back. Except for George Washington the Revolution could not have been won. Only dogged stubbornness in the face of almost insurmountable odds led him to win. The war occasioned him great personal sacrifice, both financially and so far as giving up the comforts of his home were concerned. Never did he have any personal ambi-

tion. He would have been highly content if there had been someone else who could have led the American armies. Once the war was over, his greatest ambition was to live the quiet life of a country gentleman, during the rest of his days, at Mount Vernon. He took the Presidency only as a matter of duty. If there has ever been such another man in public life, I am not aware of it.

Robert E. Lee is included because I consider him one of the noblest characters that ever lived. Gamaliel Bradford, a New Englander, in his short one-volume life of Lee says in his preface that he entitled his book *Lee The American* because his subject belonged to the whole country and not just to the South. The nobility of the man stands out even more than his greatness as a general, although he has been selected by two British generals as one of the half dozen greatest generals of all time. Both of these British generals differed in their selections of generals except in two instances—they were agreed that both Lee and Napoleon should be included in any list of the half dozen greatest generals of history.

Stonewall Jackson was such a rare character and such a perfect soldier, and the British Colonel Henderson has written such an intriguing and fascinating account of him, that no American, North or South, can afford to be ignorant of him.

In Wyman Park in Baltimore there are, on the same pedestal, superb equestrian statues of Lee and Jackson done by the accomplished South Carolinian sculptress, Mrs. Laura Gardin Fraser. These are said to be among the half dozen finest equestrian statues in the world. They should be because their subjects are unparalleled. Lee is portrayed giving his final instructions to his great lieutenant just before Jackson started, in the early dawn of that May morning, on his immortal march to encircle Hooker at the battle of Chancellorsville. I never pass the statues of these great leaders without giving them a military salute.

Gibbon's *The Decline and Fall of the Roman*

Empire and Spengler's *The Decline of the West* are of such far reaching importance to our entire civilization that to me they are *musts* for an educated gentleman. The former shows what can happen to a great empire when politicians, in order to gain popularity, succumb to ruinous give-away programs. The latter shows what has happened to the various civilizations of the world, and points to the threat to our Western civilization. He shows that the various Cultures of the world have evolved into a more practical Civilization and that the deteriorating influence in all the Civilizations has been socialism. Greek Culture degenerated into Roman Civilization, and Gibbon shows what happened to that—when the Greek soul was followed by the Roman intellect. Civilization is the terminal phase of a Culture. In the cases of Egypt, India, and China the Civilizations degenerated into a fellah-system. Spengler places the period of transition from Culture to Civilization for the Western world in the 19th century, only just ended. It takes only a casual observer to note the deleterious changes that have been working to destroy our Civilization during the 20th century, and, in my opinion (Spengler's also), the most potent of these deleterious factors has been the narcotizing influence of socialism.

Among the medical things Vallery-Radot's *The Life of Pasteur* is one of the most fascinating books ever published. One can hardly put it down. No author ever had a more superb subject to write about. As a scientist Pasteur has few peers and no superiors. If I were a young medical student today, I would want to read it before any other book relating to medicine.

Some might say that my list is topheavy with Osler. It would be difficult for any young doctor to read too much of Osler. If he ever wrote anything dull, it has escaped my notice. Of the selections from his writings *A Way of Life* is a short pithy meaty address delivered at Yale in 1913. *The Evolution of Modern Medicine* is a short and fascinating history of medicine. *Aequanimitas* and all of Osler's addresses are well worthwhile reading. Harvey Cushing's *The Life of Sir*

William Osler is one of the most fascinating biographies I have ever read, and, as a lover of biographies, I have read many fascinating biographies.

Halsted, the greatest of American surgeons, had a life replete with difficulties and accomplishments. Besides his great scientific contributions to surgery, and his new operations, he introduced the residency system, which revolutionized the postgraduate teaching of surgery. He spent a lot of time in Europe, not only in his early days, but throughout his life he went there almost every summer. It has been said that his residency system followed the German pattern. This is only partially true. The German preceptor system, instituted by Billroth, was different in that a professor had an assistant stay with him for years until he got a professorship some place else. By that system a few men were exceptionally highly trained. Halsted's residency system insured the training of a great many men, and I believe, more than any other one thing, has been responsible for the advancement of American surgery to a point where it is unquestionably true that America excels in the general level of training of her surgeons. MacCallum's *William Stewart Halsted: Surgeon* is a short account of this great man.

The *Confessio Medici*, the authorship of which is in doubt, but which may almost certainly be attributed to Stephen Paget (Cushing's *Osler*, i, 682-83), is a fascinating philosophical medical treatise, which no medical man should overlook.

Robert Burton's *The Anatomy of Melancholy* and Rabelais' *Gargantua and Pantagruel* are classics of such fascination that I almost feel like saying the same thing about them that Raymond Pearl said about Plato's *Euthyphro*, *The Apology*, and *Crito*, namely that everyone (at least every doctor) who calls himself a man should at least read them. George Eliot's *Middlemarch* is a classic, and a fascinating novel about a young doctor in England.

The three novels of Tolstoy are not only magnificent novels but they give one a very good notion of what life was like in Czarist Russia.

The fine family life of the old Russians is well portrayed in *Anna Karenina* and *War and Peace*, while *Resurrection* gives one an idea of what it was like to fall afoul of the law and be taken off to Siberia, even in the Czarist days. But as bad as some of the things were under the Czars, the family was still intact, and general conditions were nothing like so bad as they are in present day Russia under the brutish masters of the Kremlin.

As for the rest, *Don Quixote*, *Tom Jones*, *Madame Bovary*, and *The Wandering Jew* are such outstanding novels that certainly every educated man should read them. Mark Twain's *Innocents Abroad* is one of the most humorous and debunking travelogues imaginable. Of all of his books, I like it best.

The question may very well be asked: When is the medical student or young doctor, so busy with his medical studies or practice, to find time to read these books? The answer is: By utilizing scraps of time. Life for every doctor who is worth his salt is bound to be a very busy one. If he wants to get things done, he will have to learn to utilize scraps of time. No man should ever study medicine unless he is so much interested in it that he couldn't be satisfied doing anything else. A doctor is a poor man for any woman to marry. Yet a good many pretty fine gals do marry us and seem to be fairly content with their lot to boot. Naturally, they complain, and with reason, about seeing little of their husbands, but such is the doctor's lot and also the lot of his wife. So in order to get reading done the medical student or young doctor must use scraps of time and read whenever he can. There should always be books on the bedside table. A little reading can be accomplished before one falls to sleep, and if one should ever be afflicted with wakefulness, it is a blessing in disguise, because there is more time for reading. One should never travel without having books along. Then the waiting for trains or planes is not time wasted. A great amount of reading can be done en route. Vacations, of course, offer additional time.

There are people (not doctors!) who have plenty of free time and who don't know what to do with it. Someone once said that a great many people who worry about eternity don't know what to do with a rainy Sunday afternoon. I have known people who were so bored that they spent their days and evenings doing nothing but playing cards. No good doctor should ever be bored. If he is not busy with his profession, the world is full of good reading material. And besides there are always interesting people to talk with from whom one can gain much. The only excuse for a doctor's being bored is associating with dull people. That he does not have time for. He should shake off bores as a dog shakes off water on coming out of a creek.

And all through life the doctor should keep up his reading. When busy in practice, his evenings will be occupied with medical meetings, hospital staff meetings, committee meetings, keeping up with the medical literature, and with writing medical papers, to say nothing of emergency calls. However, it is always possible to snatch a few hours, especially over week ends, to read non-medical literature. Every doctor is a better doctor for doing so. Those of you who read Osler will understand why this is true.

The doctor's reading should be broad. He should not limit himself to one subject. He should make the old masters his friends. It goes without saying that he should read Shakespeare. History and biography not only give us a knowledge of the past, and of the great figures of the past (contemporary great ones should not be neglected either), but help us to forecast the future. A doctor should avoid becoming the slave of crotchets, or of being lured into following will-o'-the-wisps. He, of course, should avoid pedantry, or a conceit in his own knowledge. The more one knows, the more he knows how little he knows. (Socrates was well aware of this.) However, a knowledge of history and the humanities will give "a pleasure not to be repented of." And in the words of Virgil "Haec olim meminisse juvabit" (These things will be pleasant to remember hereafter).

The List

Euthyphro.—Plato

Apology.—Plato

Crito.—Plato

The Anatomy of Melancholy.—Robert Burton

The World of Rabelais

Middlemarch.—George Eliot

Madame Bovary.—Gustave Flaubert

Tom Jones.—Henry Fielding

Don Quixote.—Cervantes

The Decline and Fall of the Roman Empire
(6 volumes).—Edward GibbonThe Decline of the West (2 volumes).—Oswald
Spengler

George Washington (7 volumes).—Douglas

Southall Freeman

Lee The American.—Gamaliel Bradford

R. E. Lee (4 volumes).—Douglas Southall Free-
manStonewall Jackson and the American Civil War
(2 volumes).—Col. G. F. R. Henderson

Confessio Medici.—Stephen Paget

The Life of Pasteur.—René Vallery-Radot

A Way of Life.—William Osler

The Evolution of Modern Medicine.—Sir
William OslerAequanimitas and Other Addresses.—Sir Wil-
liam OslerThe Life of Sir William Osler (2 volumes).—
Harvey CushingWilliam Stewart Halsted: Surgeon.—W. G.
MacCallum

The Wandering Jew.—Eugene Sue

Anna Karenina.—Tolstoy

War and Peace.—Tolstoy

Resurrection.—Tolstoy

Innocents Abroad.—Mark Twain

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WORLD HEALTH ORGANIZATION

The World Health Organization, known as "WHO," with headquarters in Geneva, Switzerland, now groups 88 countries with the aim of protecting the health of all peoples. WHO works with national health services to prevent infectious disease (malaria, tuberculosis, syphilis, etc.), and to train health workers. It gives technical assistance to improve sanitary conditions in over one hundred countries, warns of outbreaks of epidemic disease, co-ordinates research, and recommends international standards for drugs and vaccines.

Dr. M. G. Candau, is Director-General in charge of a staff (including field staff) of about one thousand professionals of 54 nationalities. WHO's budget, contributed by Member States, is \$13,500,000 for 1958.

Reports

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The Committee for the Study of Pelvic Cancer meets monthly for the discussion of selected cases. All physicians are invited to attend these meetings.

Abstracts of case discussions

Case 1. A 36-year-old colored patient, married, gravida 4-1-2-5. The patient's youngest child was born on March 30th, 1957. She states that she had no difficulty during pregnancy or at the time of delivery. She did not have any pre-natal care and did not return to the hospital for a post-partum check. She had an apparently normal menstrual period in May, but this was followed by a profuse vaginal discharge. After that "periods" occurred twice a month and she had some intermenstrual spotting or slight bleeding. The patient consulted a physician in July but was not examined because she was bleeding. She did not return to this doctor. Her symptoms increased and in October she consulted a second physician. A pelvic examination was made at this time and the patient was told that her symptoms were probably due to recent childbirth. She was given some oral medication to control the bleeding and an injection of penicillin. On January 15, 1958, she had a severe hemorrhage and was taken to the hospital and admitted.

Diagnosis: Carcinoma of the cervix, international classification stage III.

Treatment: Deep x-ray therapy and radium.

Chairman: I hope it can never be said of anyone here, that a patient was not examined because she was bleeding, but it is frequently found in reviewing these histories. It is the excuse offered many times and has often been the reason for delay in diagnosis. Of course a patient should be examined. You may be able to see a bleeding point on the cervix or other indication as to where the bleeding is coming from which may be helpful in making a diagnosis.

* Under the auspices of the Medical and Chirurgical Faculty and the Maryland Division of the American Cancer Society.

The second physician consulted by this patient did make a pelvic examination. A letter from him gives the following information:

"This patient was seen by me only once, on October 10, 1957. At this time she was complaining of vaginal bleeding. Her pulse was 94, temperature 99.6°F. blood pressure 140/90. Vaginal examination showed her uterus still enlarged from a recent childbirth. Her cervix was inflamed and was diagnosed as cervicitis. She was given 900,000 units of penicillin and put on gantrisin tablets. She was also put on Fluid Extract of Ergot, four times a day."

This physician did examine the patient but he missed the diagnosis and he missed a golden opportunity to get a biopsy or smear. The case shows again, as we have noted in previous cases, the danger of assuming that symptoms are due to recent pregnancy. Actually in this case it was a long time after delivery before the patient consulted a physician.

Visiting surgeon: This patient was delivered at our hospital. She was an unregistered patient and had had no pre-natal care. She came in and delivered almost immediately—on the way to the delivery room, in fact. She was, however, put on the table and examined and a small cervical laceration repaired. Apparently nothing suspicious was noted at this time. But there is a note in connection with her pre-natal history which says that she had a slight amount of bleeding every month throughout this pregnancy. With this history she should have had some follow-up.

Committee member: But she did not return to the hospital?

Visiting surgeon: No. Actually she would not have come back to us in any case. If she had any post-natal follow-up, it would have been in one of the city clinics.

Committee member: In as much as she was a stage

III in January, there must have been something there in March when she delivered.

Chairman: A retrospectroscope is a wonderful instrument to look into and get all the right answers. I do not believe we can criticize the obstetricians here. The cervix was looked at following delivery. This story of slight bleeding every month throughout pregnancy was not known until after delivery. It is a story that is not too uncommon. Obviously there was patient delay and physician delay in this case concerning the symptoms after delivery.

Visiting surgeon: I would think the only debatable point would be whether or not this should also be considered institutional delay. The history of slight bleeding during pregnancy was obtained by one of the men on the obstetrical service and the patient was not followed. I think you should say it is institutional delay. You can not have a patient bleeding every month throughout pregnancy and then not do something about it. You may say that this patient came and went very rapidly on a very busy service—which is true—but during the time she was in the hospital this small observation was made and was not followed up.

Committee member: The cervix was inspected. I think you fulfilled your obligations.

Visiting surgeon: With a big cervix, immediately post-partum, it is hard to say.

Committee member: Was this patient actually in the hospital?

Visiting surgeon: Yes, she was admitted and was there for two days.

Committee member: But you did not have this history until after she delivered?

Visiting surgeon: That is correct. She came in and delivered more or less on the stretcher going to the delivery room. Her history was taken later and this history of bleeding obtained.

Committee member: I think it is entirely understandable that this patient was not followed.

Committee member: I am wondering if we should have a rule that whenever a laceration is repaired, we should take a biopsy.

Visiting surgeon: You would have an awful lot to biopsy.

Committee member: You might take an edge of the laceration before sewing it up.

Visiting surgeon: Perhaps, in the case of an old laceration. In this case, it was a fresh laceration. The time of delivery is not usually a very satisfactory time to biopsy a cervix.

Visiting surgeon: We had a series on our obstetrical service where every patient who was noted to have a cervical erosion was biopsied at delivery. Not one was reported as other than chronic cervicitis. My feeling is that delivery is not the time to biopsy a cervix. The best time to examine it is at the time of the post-partum check. This patient did not return for examination so could not be checked.

Committee member: Was any effort made to follow the patient?

Visiting surgeon: I feel sure there was not, although she would have gone to one of the city clinics rather than return to us.

My point is only that with this history of bleeding every month throughout pregnancy, a patient should be followed and checked. I believe the purpose of this Committee is educational. For what value it may have in an educational way, I think we should point out that this patient had a history which indicated she should have been followed. She was not followed. I don't think you can just ignore this.

Committee member: I think that is a good point. In classifying cases we do not necessarily imply criticism. Technically I think this is "institutional delay."

Chairman: I think it is entirely understandable that this patient was not followed, but you have presented a rather strong case against yourself. The diagnosis must have been there. Had this patient had any pre-natal care, the diagnosis might have been made even then.

Visiting surgeon: There is one other point in connection with this case which may be worth mentioning. I am not speaking in defense of the doctors concerned but I am wondering if the age of this patient might have accounted for some of the delay. This patient is 36 years old. Another patient we discussed today is 31 years old. There was considerable delay in this case also. For some reason the patient under forty is not thought to have carcinoma. I think this is a rather wide-spread belief.

Chairman: I think that is unfortunately true, although carcinoma of the cervix is not a disease limited to any age group.

Case 2. A 64-year-old colored patient, married, gravida 10. This patient was a known diabetic and had been under treatment for several years. In July of 1954 she was referred to the gynecology clinic because of a cervical erosion. A biopsy was taken and was reported as showing basal cell hyperactivity. A repeat biopsy was done with the same

findings. The patient was followed in the clinic and a biopsy, taken on October first, showed intra-epithelial carcinoma. She was admitted to the hospital and on October 20th had a modified Wertheim operation. Pathological report on the cervix: "Intra-epithelial carcinoma with glandular involvement." Following surgery, the patient returned to the clinic at regular intervals for check-up. When seen in January 1958, the examination was negative, but a routine Papanicolaou smear was reported as class V. A biopsy was done on February 3rd, and reported as "marked basal cell hyperactivity." She was admitted to the hospital for examination under anaesthesia and biopsy of the vaginal vault.

Diagnosis: Intra-epithelial carcinoma, cervix, recurrent to the vagina with early stromal invasion. She was treated with two applications of radium.

Chairman: Is this the fifth or sixth recurrence that we have had?

Committee member: This case is the sixth. We have followed all of our stage O cases carefully but for a long time did not do routine smears as a part of the follow-up.

This patient, by the way, is now 69 years old and not a good operative risk. That is why we treated her with radium.

Committee member: I think we could very seriously raise the question of institutional delay in this case because we did not do smears in the interval between 1954 and 1958. We did not begin to do routine smears on these cases until 1957. We followed the patient regularly but perhaps not carefully enough.

Visiting surgeon: Did this patient have a conization?

Committee member: I do not happen to have the patient's history here. I would imagine that she did. It has been our policy for some time to do a conization before proceeding with surgery and I feel quite sure that this was so in 1954. We do have the report on the operative specimen and there was no invasion.

Visiting pathologist: How carefully was the operative specimen sectioned? I ask because I am wondering if the disease was further along than this indicates.

Committee member: We always section through the vaginal cuff and note whether or not the disease extends to the margin.

Visiting surgeon: How much cuff was taken on the first operation?

Chairman: I think that is the whole point. You

have to live with a disease for a long time before you learn about it and I think we are now beginning to understand that although the carcinoma is pre-invasive it may spread out over a wide area. I think it is most important to take a wide vaginal cuff. I remember particularly two cases of mine which emphasize this point. One was a very thin woman and the other quite heavy. In the thin woman I took out the entire upper half of the vagina. The carcinoma-in-situ extended down into the vagina. In the second case, the woman was obese and there were some operative difficulties. After I had the whole specimen out, I decided to try again to get a little more vaginal cuff and I did get about another centimeter. The pathological examination showed carcinoma-in-situ in this cuff. She has done well and has had no recurrence.

Visiting surgeon: Concerning the case under discussion, you say that you treated the patient with radium at the time of the recurrence because you considered her a poor operative risk. If a patient is a good operative risk, do you prefer surgery?

Chairman: I had one patient who had had surgery sometime ago for endometriosis and later a modified Wertheim for intra-epithelial carcinoma of the cervix. When she had a recurrence in the vaginal vault I operated on her again but I worked for two hours before I could even identify the vagina. I think perhaps irradiation is safer.

Committee member: I think it is a question. There is not too much to work on in using radium.

Committee member: The new lucite applicators are a great help. These come in three sizes and the radium capsules go in a channel in the center. I think it is a relatively safe procedure.

Visiting surgeon: What about the Schiller test in following these cases and as an aid in surgery?

Chairman: I feel it is not always as satisfactory as you might hope. I have used it in both cases of mine with a recurrence. One case showed up beautifully; the second showed very poorly—the mucosa was atrophic due to the previous removal of the ovaries, and none of the vagina took the iodine.

Committee member: I did a Schiller test on the patient we are discussing, but it was not satisfactory. The mucosa was probably atrophic.

Visiting surgeon: How safe did you feel in doing a modified Wertheim on a patient without a diagnostic conization?

Committee member: As I have said, I do not have the patient's history here, but we do a conization

almost routinely and I think very probably she was coned and it just is not noted on this abstract.

Visiting surgeon: What do you think are the indications for a conization?

Committee member: I think a patient should be coned to make a diagnosis if the biopsy shows basal cell hyperactivity or coned to establish the extent of the disease if the biopsy shows carcinoma-in-situ. I have come to believe that all patients with intra-epithelial carcinoma ought to be coned before definitive therapy is outlined. I have not always done this but I think now that it should be done.

Chairman: How do some of the rest of you feel? Should all cases be coned?

Committee member: All is a big word. In how many cases where you have curetted the endocervix and not found invasion, has a cone altered the diagnosis? In how many cases have you changed the therapy as a result of conization?

Visiting surgeon: I can not think of any, off hand.

Committee member: I think we have had several cases where we have found enough invasion to treat the patient with irradiation rather than surgery.

Committee member: I remember two without conization who were found to have parametrial involvement at the time of surgery. On the other hand, I recall another case that was missed with a conization and ultimately had a positive biopsy.

Visiting surgeon: Could this case we are discussing have been intra-epithelial carcinoma of the vagina in the first place?

Chairman: That brings up the question of the multicentric origin of intra-epithelial carcinoma. Additional work should be done on this subject. Foote and Stewart showed that a multicentric origin can be demonstrated in some cases.

We have a second case today that is similar to the one we have been discussing.

Case 3. This is a 58-year-old white patient, gravida 12. She was first referred to the hospital clinic in 1944 when she was 45 years of age, because of "flooding" and some intermenstrual spotting. Cervical biopsy of September 10, 1944, was reported as "Bowen's disease." A repeat biopsy was done on September 17th, and was said to show cervical erosion and chronic cervicitis. The patient was admitted to the hospital and on October 1st had a panhysterectomy and bilateral salpingo-oophorectomy. Pathological report: Fibrosis, uterus; atrophic endometrium; chronic cervicitis with squamous metaplasia. The patient had no further difficulty

until February 1957 when she began to have intermittent spotting. She consulted her physician in mid-March and was referred to the hospital.

Diagnosis: Carcinoma of the vaginal vault.

Treatment: Deep x-ray therapy and radium.

Committee member: Have these original slides been reviewed?

Visiting surgeon: Yes, the slides have been reviewed several times. The original slide of September 10, 1944, shows Bowen's disease or carcinoma-in-situ, cervix. The repeat biopsy did not show anything other than cervical erosion and chronic cervicitis. A simple hysterectomy was done. There was no carcinoma in the operative specimen.

Chairman: Is this multicentric cancer?

Visiting pathologist: You have posed a question for further research. The answer I do not have.

Visiting surgeon: During the past year, we have treated nine cases of carcinoma-in-situ of the cervix by vaginal hysterectomy and two other cases using both the vaginal and abdominal approach. In all cases we have taken a wide vaginal cuff—two to two and one-half centimeters. There have been no complications in any of these cases. We like the vaginal approach because of the wide vaginal cuff which can be obtained.

Visiting surgeon: Would you ever consider using radium to the vagina following a modified Wertheim for carcinoma-in-situ, and as a part of the primary treatment?

Committee member: I don't think so. It would cause too much constriction in the vagina. Most of these patients are young—a good many in their thirties. It might also cause difficulty in the interpretation of smears.

Chairman: I do not think there is any question of delay in either of these cases as to diagnosis or treatment.

Statistics

Total cases 1660 to March 1, 1958

Patient delay	697
Physician delay	123
Physician and patient delay	114
Institutional delay	40
Institution and patient delay	39
Institution and physician delay	6
Institution, physician and patient delay	2
Inadequate or improper treatment	21
Delay due to laboratory error	4
No delay	569
Asymptomatic detected cases	45

Component Medical Societies



ALLEGANY-GARRETT COUNTY MEDICAL SOCIETY

LESLIE E. DAUGHERTY, M.D.

Journal Representative

ALLEGANY COUNTY CHEST DISEASE CONFERENCE

A Medical-Surgical Chest disease conference was held in Cumberland, March 19th. It was preceded by a dinner at the Algonquin Hotel in honor of Dr. Otto C. Brantigan, Professor of Surgical Anatomy at the University of Maryland and Chief of the Surgical Service of the Church Home and Hospital, Baltimore.



DRS. CALVIN HADIDIAN, OTTO C. BRANTIGAN,
CARLTON BRINSFIELD

Dr. Brantigan gave an illustrated talk, at the Memorial Hospital Nurse's Home, on the "Surgical Treatment of Pulmonary Emphysema." He particularly pointed out the benefits of denervation in decreasing the productive secretions, relaxing the bronchii and reducing the pulmonary artery pressure. Furthermore, he said, when generalized pulmonary emphysema is present, all areas of the lung are not equally involved by tissue destruction.

PERSONALS

Dr. Charles Conrad Zimmermann, Cumberland, continues to improve after a recent operation at the Johns Hopkins Hospital, Baltimore.

Dr. Mildred Sheesley Wagner and her husband, of Westernport, are on a visit to California.

Dr. Abraham J. Mirkin, Cumberland, attended the Inter-National Sports Car races in Sebring,

Florida. Dr. Mirkin is the Medical Director, with other physicians assisting.

Dr. W. Royce Hodges, Cumberland, spent two weeks at the Lahey Clinic recently.

Dr. G. Overton Himmelwright and Dr. Leo H. Ley, Cumberland, attended the 10th anniversary scientific assembly of the American Academy of General Practice in Dallas, Texas.

Dr. and Mrs. James G. Stegmaier, of Cumberland, spent three weeks in Florida.

Dr. Clay E. Durrett and Dr. Leo H. Ley, Jr. were recently appointed physicians to the Civil Service Board in Cumberland.

PRESIDENT WALTERS HOLDS PRESESSION CAUCUS

The last meeting of the Allegany-Garrett County Medical Society was held in Cumberland in April.



DRS. HILDA WALTERS, PRES., FRANK CAWLEY,
GEORGE SIMONS, W. ROYCE HODGES

This was a business meeting and insurance by carriers and unions came up for discussion. The meeting was followed by a luncheon.

FIFTY YEARS AGO

—1908—

Senator John Stump of Cumberland, was requested by the physicians of Allegany County to introduce a Bill in the State Legislature to grant the right to all physicians in the County to treat charity patients at the Western Maryland Hospital without charge. The system in vogue was "that four physicians were appointed by the Staff to do the service work and were paid a salary of \$1,000 per year,

equally divided." It was noted that the hospital would save this amount. The Bill was reported unfavorably by the legislative committee by unanimous vote.

BALTIMORE CITY MEDICAL SOCIETY

CONRAD ACTON, M.D.

Journal Representative

(Your correspondent is behind in his reporting. This is due to the succession of happenings common to all this blizzardy winter. This lapse is regretted. The chronicle of the Baltimore City Medical Society will be brought up to date as rapidly as possible).

The first Annual Business Meeting of the Baltimore City Medical Society, under its new constitutional provisions, was held in the Med-Chi building on Friday, December 6, 1957. It was preceded by a congenial, dutch-treat dinner at the Maryland Club. Twenty-two of the twenty-four officers and Committee Chairmen were present.

The meeting was called to order at 8:30 by President Geraghty. There were thirty-five persons present. The atmosphere of the group was not unlike that of a meeting of the Executive Board. It was appropriate that President Geraghty start the meeting with a review of the work of the Executive Board during his year. As this report will be printed elsewhere, it need not be repeated. Few members realize, perhaps not many of the Board members, themselves, know how much work the Board does for the Society or how far-reaching are the effects of its policies and the decisions made and implemented for us by our Board. We members owe them a very real debt of gratitude.

The Treasurer's Report was distributed in writing, and not read. Treasurer Kimberly, however, commented on some of the items. He reminded us that since 1952 only \$10.00 of our dues comes to the City Society. The rest goes to the State Society, essentially as a form of remuneration for building use and services. In the report, other items of expenditure were analyzed and insurance data noted.

Dr. Wetherbee Fort, Chairman of the Committee on Zoning, outlined the intricate political steps required before the measure was enacted. He declared that the problems facing the Society in this regard were those of regulation under the measure and defense against its attacks. Regulation means

spelling out criteria to determine the suitability for a physician in a location. Attacks on the validity of the Ordinance are to be expected from the paramedical interests that wanted to ride along on the Bill and were excluded.

Dr. Karl Mech, Chairman of the Committee for Boy Scout Camps, was given approval for continuing sponsorship of medical assistance to this worthy Red Feather organization.

Dr. Moses Paulson, Chairman of the Constitution and By-Laws Committee, reported that he was "about finished" with the revision of the 1930 edition of our basic charter.

Dr. Francis Gluck, Chairman of the Committee on Emergency Medical Calls, reported that one member of his group had been dropped for cause. There is a group of about thirty doctors to answer these calls.

Dr. Herman Seidel, Chairman of the Geriatrics Committee, in his report reviewed the rate of progress in his field in the past and the advances hoped for in the future.

Dr. Charles Goldsborough, Chairman of the Legislative Committee, reported on that Committee's activities.

Dr. Sullins Sullivan, Chairman of the Magistrates Committee, reported eight deaths in 22,000 arrests through the year. This was comparable to the 1956 statistics. His Committee recommends, and is working for, a special ward in which sick persons may be screened.

Dr. William Garlick, Chairman of the Membership Committee, reported 79 active and 20 associate members elected; seven were dropped. The total membership is 1607.

Dr. Hammond J. Dugan, Jr., Chairman of the Publicity Committee, reported no activity.

Dr. Harry Hull, Chairman of the Program Committee, presented what was probably the most controversial report of the evening. He recommended discontinuing our general scientific meetings because of lack of attendance. The existence of fifteen Sections, all with their own meetings, was blamed for the poor attendance; that and the shift in emphasis and interest incident to Section growth. There was spirited protest. Dr. Ward declared that it was not the fault of the programs arranged, as they had been excellent. He felt that the interest of the members just was not there. Dr. Pierpont suggested that the Sections arrange joint meetings with the whole Society at intervals.

Effect on our tax status was mentioned. Influence

of competing meetings required by hospitals under the accreditation programs loomed large. Need for publicity was put forward. The Report was finally "accepted, but not approved" and referred to the Executive Board for action.

Dr. Harry M. Robinson, Jr., Chairman of the Committee on Public Medical Education, reported that his Committee had continued the series already established on radio and television. He felt that there was too much airing of the radiation hazards problem in the press.

Dr. Holmes Boyd, Chairman of the Committee on Drunken Drivers, reported correspondence with Judge Scherr, Chief Magistrate's office.

Dr. William Gilmore, Chairman of the Sanitation Committee, reported earnest attempts to further legislation for collecting trash on holidays. An Ordinance for this purpose, introduced by William D. Schaefer, Councilman from the Fifth District, has apparently jumped political hurdles but is stalled in the City Hall.

Dr. John Scott, Chairman of the Committee on Social Agencies, reported that support from the City Society seemed needed and recommended that it be continued.

Dr. Theodore Stacey, Chairman of the International Relations Committee, gave the results of the inquiry into the closing of drug stores at night, which inconveniences physicians in emergencies. Since it is legal for them to close and unprofitable for them to stay open, little progress has been made.

Drs. Huntington Williams and Otto Phillips, Chairmen respectively of the Maternal Mortality and the Joint Anesthesia Study Committees, reported on the activities and statistics pertinent to their fields.

Dr. Grant Ward, Chairman of the Nominating Committee, then read the slate offered at the November meeting. According to the constitution, no changes could be made but a written ballot was required. While the forty unanimous ballots were being counted, Dr. Ward, in his genial and endearing manner presented the gavel to the outgoing President, Dr. Frank Geraghty, and graciously expressed the Society's appreciation for his effective leadership. Dr. Ward remarked that the seven year tenure as Secretary had been good training for the job.

After adjournment of the meeting the doctors joined their Woman's Auxiliary for a buffet in the basement room of the Med-Chi building. Dr. Otto

Phillips played Christmas music on the electric organ and some members sang. It was a most pleasant, sociable time.

FREDERICK COUNTY MEDICAL SOCIETY

LOUIS R. SCHOOLMAN, M.D.

Journal Representative

The regular meeting of the Frederick County Medical Society was held on March 18th at the Francis Scott Key Hotel in Frederick. Dr. J. J. Dobbie, Orthopedic Surgeon, of Hagerstown, spoke on the "Evaluation of the Aching Back." The talk was full of helpful facts and was very well received.

MONTGOMERY COUNTY MEDICAL SOCIETY

JOHN J. CURRY, M.D.

Journal Representative

Dr. Katharine Chapman, Historian, Montgomery County Medical Society, read a paper on the "highlights" of our 1957 history at the Society's regular monthly meeting held on March 18, 1958.

Our President, Dr. Merrill Cross, officiated at all eight regular meetings, which were held during the past year at the Norbeck Country Club. An invocation, by a different member on each occasion, preceded the dinner; the scientific meeting followed and a business meeting closed each session. The average attendance was one hundred and twenty-two. The scientific subjects included: "The Medical Witness," "Tranquilizing Drugs," "Immunization Against Infectious Diseases," "The Doctor Looks at the Stock Market," "Brain-Damaged Children," "Asiatic Flu," "Reactions to Antibiotics," and "The Recognition and Treatment of Depression."

During the year thirty-nine doctors were accepted for membership. There were eleven resignations or transfers and one death, making a total gain of twenty-seven. Our membership at the end of 1957 was three hundred and thirty-three. The one death occurred at the end of April when Dr. Frieda Fromm-Reichmann, a psychiatrist at Chestnut Lodge in Rockville died. She had been a member of our Society for thirty-one years. Mention should also be made of the death in November of a charter member

of the Woman's Auxiliary, Mrs. Upton D. Nourse, whose husband had served twice as president of our Society.

Honors have come to several of our members:

Dr. William Peebles was chosen President-elect for 1958-59 of the Maryland Public Health Association.

Dr. Henry Laughlin was appointed Chairman of the Committee on Public Information of the American Psychiatric Association.

Dr. Henry Laughlin completed a second around-the-world tour of medical and psychiatric centers. He gave a total of fifteen lectures.

Dr. John Brownsberger was elected Vice-President of the Maryland Chapter of the American College of Surgeons.

Dr. Peter N. Lombard was chosen Governor of Kiwanis International for the Capitol area.

Dr. Merrill Cross was elected to the Nominating Committee of the Medical and Chirurgical Faculty of Maryland.

Col. Bennie Moxness received life membership in the Military Surgeons for his essay "Recent Trends in Prevention and Care of Casualties of War" which was voted second best essay on military medicine.

Dr. Robert Bier was fortunate in meeting Queen Elizabeth and Prince Philip at a reception at the British Embassy during the royal couple's Washington visit.

Dr. Carolyn Pincock and Dr. Benjamin Manchester were among the five who received awards from the Central High School Alumni Association.

Policies discussed at the business meetings included: Opposition to mass polio immunization, recommending instead immunization by the family doctors; signing of the Medicare contract; cooperation in formation of the Washington-Metropolitan Medical Council; objection to excessive fees said to be charged by local doctors in insurance cases; sending our delegates uninstructed to State medical meetings; consideration of incorporation of the Society if the original charter can be located.

The Society continued to supply speakers for various lay meetings from their Speakers Bureau; supported the annual Diabetes Detection Drive; agreed to the raising of the State dues; and assigned doctors for around-the-clock emergency service for the fifth consecutive year, in spite of adverse criticism from Rescue Squads. With the Montgomery County Chapter of the American Cancer Society, we

sponsored three summer symposia on neoplastic diseases held at N.I.H., with attendance ranging from sixty-eight to two hundred and seven. For the first time the Upjohn Company's "Grand Rounds" (a closed television broadcast) was presented in the county, at N.I.H., and sponsored by our Society. An attendance of four hundred and forty-four was recorded.

Probably the most important step taken during the year was the appointment of a full-time Executive Secretary. Capt. John Loy, U.S.A. Retired, began his duties on March 1st, with an office in Room 403, 7401 Wisconsin Avenue, Bethesda. His untiring efforts have eased the work of our Society's officers, and committee workers and have improved the liaison between our Society and other professional and lay groups.

On the lighter side, our extra-curricular activities included: The Lederle picnic in February when over eighty people enjoyed touring the Lederle plant and having two days in New York with all expenses paid; the Brunch given by the Woman's Auxiliary on March 31st, "Doctors' Day," at the Washingtonian Motel on Route 240; the family type picnic held in June at the Merlands Club; the November dinner-dance, held at the Woodmont Club and enjoyed by 239 members and guests. Unfinished business at the end of the year included: The need for a working plan for any major disaster or enemy attack; a new format for the monthly bulletin; extra office help for our overworked Executive Secretary; a directory of and for our members so planned that it can be kept current; a revision of the present Answering Service; the possible purchase of land or building for our use.

PRINCE GEORGE'S COUNTY MEDICAL SOCIETY

DAVID S. CLAYMAN, M.D.

Journal Representative

At the December 3, 1957 meeting, Dr. John W. Perkins was nominated and elected unanimously as President of the Prince George's County Medical Society for 1958. He conducted the year's first meeting on January 7, 1958.

Other officers elected for 1958 are: David S. Clayman, M.D., Vice-President, Ronald S. Fleischer, M.D., Secretary, and Richard D. Bauer, M.D., Treasurer.

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Journal Representative

Dr. Katharine Chapman, Historian, Montgomery County Medical Society, read a paper on the "highlights" of our 1957 history at the Society's regular monthly meeting held on March 18, 1958.

Our President, Dr. Merrill Cross, officiated at all eight regular meetings, which were held during the past year at the Norbeck Country Club. An invocation, by a different member on each occasion, preceded the dinner; the scientific meeting followed and a business meeting closed each session. The average attendance was one hundred and twenty-two. The scientific subjects included: "The Medical Witness," "Tranquilizing Drugs," "Immunization Against Infectious Diseases," "The Doctor Looks at the Stock Market," "Brain-Damaged Children," "Asiatic Flu," "Reactions to Antibiotics," and "The Recognition and Treatment of Depression."

During the year thirty-nine doctors were accepted for membership. There were eleven resignations or transfers and one death, making a total gain of twenty-seven. Our membership at the end of 1957 was three hundred and thirty-three. The one death occurred at the end of April when Dr. Frieda Fromm-Reichmann, a psychiatrist at Chestnut Lodge in Rockville died. She had been a member of our Society for thirty-one years. Mention should also be made of the death in November of a charter member

of the Woman's Auxiliary, Mrs. Upton D. Nourse, whose husband had served twice as president of our Society.

Honors have come to several of our members:

Dr. William Peeples was chosen President-elect for 1958-59 of the Maryland Public Health Association.

Dr. Henry Laughlin was appointed Chairman of the Committee on Public Information of the American Psychiatric Association.

Dr. Henry Laughlin completed a second around-the-world tour of medical and psychiatric centers. He gave a total of fifteen lectures.

Dr. John Brownsberger was elected Vice-President of the Maryland Chapter of the American College of Surgeons.

Dr. Peter N. Lombard was chosen Governor of Kiwanis International for the Capitol area.

Dr. Merrill Cross was elected to the Nominating Committee of the Medical and Chirurgical Faculty of Maryland.

Col. Bennie Moxness received life membership in the Military Surgeons for his essay "Recent Trends in Prevention and Care of Casualties of War" which was voted second best essay on military medicine.

Dr. Robert Bier was fortunate in meeting Queen Elizabeth and Prince Philip at a reception at the British Embassy during the royal couple's Washington visit.

Dr. Carolyn Pincock and Dr. Benjamin Manchester were among the five who received awards from the Central High School Alumni Association.

Policies discussed at the business meetings included: Opposition to mass polio immunization, recommending instead immunization by the family doctors; signing of the Medicare contract; cooperation in formation of the Washington-Metropolitan Medical Council; objection to excessive fees said to be charged by local doctors in insurance cases; sending our delegates uninstructed to State medical meetings; consideration of incorporation of the Society if the original charter can be located.

The Society continued to supply speakers for various lay meetings from their Speakers Bureau; supported the annual Diabetes Detection Drive; agreed to the raising of the State dues; and assigned doctors for around-the-clock emergency service for the fifth consecutive year, in spite of adverse criticism from Rescue Squads. With the Montgomery County Chapter of the American Cancer Society, we

sponsored three summer symposia on neoplastic diseases held at N.I.H., with attendance ranging from sixty-eight to two hundred and seven. For the first time the Upjohn Company's "Grand Rounds" (a closed television broadcast) was presented in the county, at N.I.H., and sponsored by our Society. An attendance of four hundred and forty-four was recorded.

Probably the most important step taken during the year was the appointment of a full-time Executive Secretary. Capt. John Loy, U.S.A. Retired, began his duties on March 1st, with an office in Room 403, 7401 Wisconsin Avenue, Bethesda. His untiring efforts have eased the work of our Society's officers, and committee workers and have improved the liaison between our Society and other professional and lay groups.

On the lighter side, our extra-curricular activities included: The Lederle picnic in February when over eighty people enjoyed touring the Lederle plant and having two days in New York with all expenses paid; the Brunch given by the Woman's Auxiliary on March 31st, "Doctors' Day," at the Washingtonian Motel on Route 240; the family type picnic held in June at the Merlands Club; the November dinner-dance, held at the Woodmont Club and enjoyed by 239 members and guests. Unfinished business at the end of the year included: The need for a working plan for any major disaster or enemy attack; a new format for the monthly bulletin; extra office help for our overworked Executive Secretary; a directory of and for our members so planned that it can be kept current; a revision of the present Answering Service; the possible purchase of land or building for our use.

PRINCE GEORGE'S COUNTY MEDICAL SOCIETY

DAVID S. CLAYMAN, M.D.

Journal Representative

At the December 3, 1957 meeting, Dr. John W. Perkins was nominated and elected unanimously as President of the Prince George's County Medical Society for 1958. He conducted the year's first meeting on January 7, 1958.

Other officers elected for 1958 are: David S. Clayman, M.D., Vice-President, Ronald S. Fleischer, M.D., Secretary, and Richard D. Bauer, M.D., Treasurer.

The Executive Board of the Society consists of the following physicians: John W. Perkins, David S. Clayman, Ronald S. Fleischer, Richard D. Bauer, Norman Comeau, S. Jack Sugar, Hans Wodak (Past President), William Hagan and Albert Roth.

Doctors Hagan, Etienne and Wodak were elected to serve as Med. Chi. Delegates for 1958. Doctors Comeau, Haught and Samuel Sugar were elected as Alternate Delegates.

During the winter months, a number of interesting topics were presented at the regular meetings. Among them were "The Diagnosis of Thyroid Disorders" by Dr. Adolph Friedman; "Recent Trends in the Treatment of Metastatic Malignancy" by Dr. John Tuohy and a showing of the William S. Merrill

Company film entitled "The Physician As An Expert Witness." Questions by the members after the film were answered by Mr. Ralph W. Powers, a local attorney.

A most interesting all day Forum on "The Doctor and His Medical Economics Problems" was presented by the William S. Merrill Company at the Statler Hotel, Washington, D. C. It was well attended by physicians from four states and the District of Columbia.

Prince George's County Medical Society is constantly growing, as evidenced by our increasing membership. We all look forward to a most constructive, interesting and successful year.

ARTHRITIS AND RHEUMATISM FOUNDATION OFFERS
AWARDS FOR WORK IN THE FUNDAMENTAL
SCIENCES RELATED TO ARTHRITIS

(Deadline for applications—October 31st)

The Arthritis and Rheumatism Foundation offers predoctoral, postdoctoral and senior investigatorship awards in the fundamental sciences related to arthritis for work beginning July 1, 1959. Deadline for applications is October 31, 1958.

There are three types of awards. (They are not "grants-in-aid" for a research project).

1. *Predocctoral Fellowships*: Limited to students holding Bachelors' degrees. Each applicant studying for an advanced degree must be acceptable to the individual under whom he will work. The Fellowships are for one year, with a prospect of renewal.

2. *Postdoctoral Fellowships*: Limited to applicants with degree of Doctor of Medicine, Doctor of Philosophy—or equivalent. Fellowships tenable for one year, with prospect of renewal.

3. *Senior Investigator Awards*: For candidates holding or eligible for a "faculty rank"—such as Instructor or Assistant Professor and who are sponsored by their institution.

For further information and application forms, address the Medical Director, Arthritis and Rheumatism Foundation, 10 Columbus Circle, New York 19, N. Y.

Necrology*

Winter Reginald Frantz, M.D.

1886-1958

Dr. Winter R. Frantz was born July 15, 1886, the son of John and Ida Winter Frantz. The Frantz family had been natives of Cumberland through three generations. Dr. Frantz, while residing in Florida, died from a heart attack.

Dr. Frantz was an only child. He attended Allegheny County High School graduating in 1902. At the age of sixteen, he entered the University of West Virginia where he graduated in 1908 with a Bachelor of Science degree. In 1912 he graduated from the Johns Hopkins Medical School. He then did post-graduate work in Willard Parker Hospital, New York City, for three years. He began the practice of medicine in Cumberland in 1915. In June 1917, he

was commissioned a 1st Lieutenant in the Medical Corps of the United States Army and was discharged in 1919.

His office was at 56 Bedford Street in Cumberland. For eleven years he had been the City and County Health Officer, retiring in 1957.

Dr. Frantz was twice married and leaves one daughter and his widow.

His hobby was fishing. He maintained a cottage on the Potomac River for many years. Fraternally, he was a Mason and an Elk. In politics, he was a Republican.

LESLIE E. DAUGHERTY, M.D.

Harry R. Slack, Jr., M.D.

1888-1957

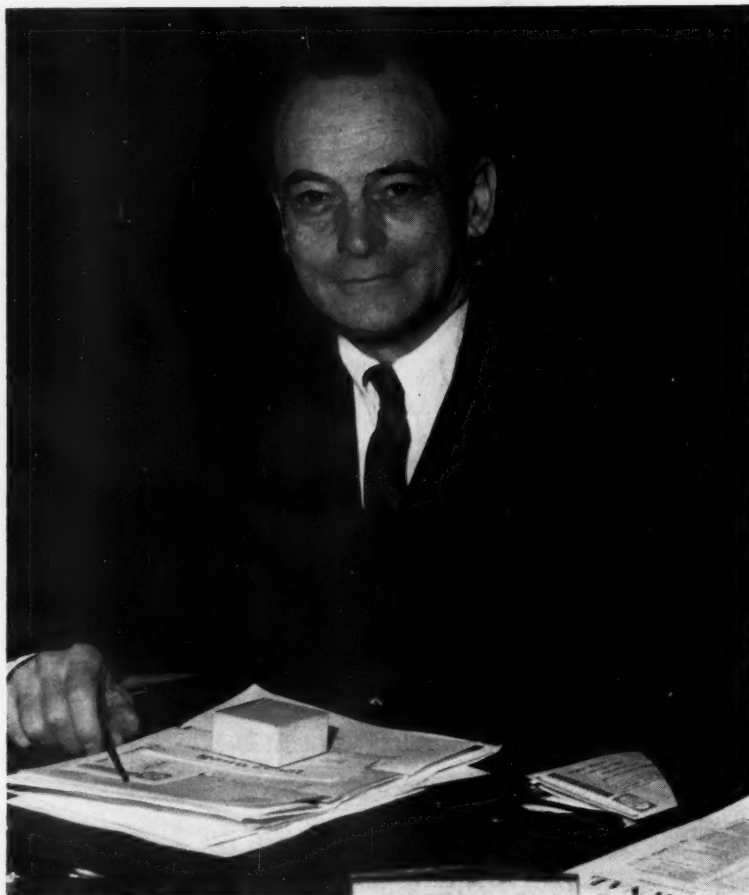
Rarely, but occasionally, one meets with such a man as Harry Slack. He seemed to breathe a purer, finer air, and so be above the petty annoyances of life. He shouldered his own burdens and those of many others quietly and effectively. Everyone who knew him, loved him.

He was born in LaGrange, Georgia, in 1888, the son of Dr. Harry Slack and Louise Bradford Slack. After private education at home, he entered the University of Georgia where he graduated in 1908. In 1912, he received his medical degree from The Johns Hopkins University School of Medicine. Almost immediately he came under the influence of Dr. Samuel Crowe, working first as his personal assistant, and also as the only house officer in the Department of Otolaryngology. In 1913, Dr. Crowe and Dr. Slack toured Austria and Germany together, visiting clinics in Vienna, Berlin, and Freiburg, studying new techniques to be brought back to the

Johns Hopkins. He completed his residency training in 1915, and was appointed the first Clinical Assistant by Dr. Crowe. In 1915, he resigned his Hopkins appointment to go to France as a member of the Red Cross. There he worked with the French Army through 1916. He returned to America in time to join Base Hospital 18, "The Johns Hopkins Hospital Unit," with which he returned to France and served through the remainder of the war. He came home in 1919 to enter private practice and to renew his teaching assignments in the Johns Hopkins Medical School.

In 1922, he was called to the Peking Union Medical College in China as Exchange Professor of Otolaryngology, this professorship being supported by a grant from the Rockefeller Foundation. Just before receiving this appointment he married Elizabeth Blanchard Randall of Baltimore. Their marriage has been an example to all, not only of the happiness but also of the comfort, strength and power which a

* A. S. Chalfant, M.D., *Memoir Appointee*.



HARRY R. SLACK, JR., M.D.

wife can bring to a man. Both of them shared a great enthusiasm for China and, following World War II, Dr. Slack became a member of the Board of the American Bureau of Medical Aid to China.

He returned to the United States in 1923 to re-enter private practice in Baltimore. Shortly after this, he became associated with the Presbyterian Eye, Ear, Nose and Throat Hospital. He was appointed Chief Surgeon of this institution in 1928. He held this post until ill health forced him to retire several years ago.

As the senior member of the Visiting Staff in the Department of Otolaryngology at Johns Hopkins, he played a prominent roll in the development of the clinical teaching in the Medical School and in the Residency Training Program. His close association

with Dr. Crowe continued until the latter's death in 1955. Dr. Slack was the first resident in this department in 1915, and for the last fifteen years of his life served it as Associate Professor.

Because he was the best example of the aristocracy of true democracy, he had a compelling sense of "noblesse oblige." Civic responsibilities were continuously undertaken, both by Harry and by his devoted wife, at what must many times have meant a sacrifice of time and strength. Both shared a keen interest in music, and have been among the leaders in supporting civic musical enterprises. He served for four years as President of the Baltimore Opera Club. He was also a member of the Vestry of Saint Christopher's-by-the-Sea, the Protestant Episcopal Church at Gibson Island. The open hospitality of

the Slacks, both at their home on Bishop's Road and at Gibson Island, is proverbial.

In World War I, without hesitation he joined the Field Ambulance as already stated. In World War II, the Slacks were to experience the pride as well as the constant apprehension and dread of having their oldest son, Harry III, serve as an Ace fighter pilot in the U. S. Army Air Corps in England and France where he achieved great distinction. No parents con-

cealed their feelings with more outward calm. Cameron, the second son, was too young for the war but later served in the Marine Corps.

To his wife; to his two sons, Harry and Cameron; to his lovely daughter, Elizabeth; to his five grandchildren goes the deepest sympathy of this Faculty. We share with them their grief and we share with them their solemn pride.

I. RIDGEWAY TRIMBLE, M.D.

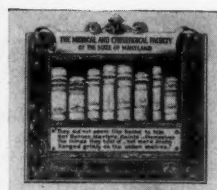
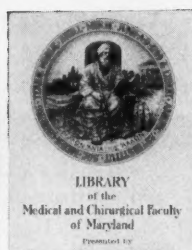
ANNUAL ASSEMBLY IN OTOLARYNGOLOGY, UNIVERSITY OF ILLINOIS, COLLEGE OF MEDICINE

The Department of Otolaryngology, University of Illinois, College of Medicine, announces its Annual Assembly in Otolaryngology from September 29 through October 5, 1958. The Assembly will consist of an intensive series of lectures and panels concerning advancements in otolaryngology, and evening sessions devoted to surgical anatomy of the head and neck and histopathology of the ear, nose and throat.

Interested physicians should write to: Department of Otolaryngology, 1853 West Polk Street, Chicago 12, Illinois.

"READ... MARK... LEARN AND INWARDLY DIGEST"

Show the "boys" you also are up-to-date by keeping abreast of new developments in medicine
THROUGH YOUR LIBRARY



Library

Louise D. C. King *Librarian*

"Books shall be thy companions; bookcases and shelves,
thy pleasure-nooks and gardens." *Ibn Tibbon*

"THOSE MUSTY OLD VOLUMES"

Times without number we have heard people say: "Why do you want to keep all of those out-of-date 'books in the library? It is the modern literature doctors need, those old books are just taking up space AND ARE NEVER READ." Why aren't they read, we should like to know? Are you so superior in your training and knowledge, that you feel the countless number of physicians who went before you have nothing to offer, and that the meat from all published writings has already been extracted and put to use? Did you but realize it, many medical theories have been promulgated and facts demonstrated, which have lain dormant in some musty tome for many years. The older literature is full of such ideas, waiting for the physician or scientist of vision to seize upon them, and make them useful in the modern practice of medicine. This might very well be you, and in reading some old volume, it is quite possible you might stumble on such facts. To illustrate our point, we have taken a few items from one of our newer specialities which should give you cause for thought.

ANESTHESIOLOGY

Nitrous oxide

Sir Humphrey Davy investigated its therapeutic use in 1799 but with the exception of Horace Wells' abortive attempt in 1845, it was not until 1868 that it became a feasible anesthetic agent, a lapse of 70 years.

Ether

Valerius Cordus described its synthesis in 1540. Two hundred and fifty years later it was used therapeutically for phthisis but its first use for a surgical procedure was in 1842.

Ethyl Chloride

Flourens described its anesthetic action in 1847 but it was not until 1915, when closed principles of anesthesia were evolved, that such volatile agents were used.

Ethylene

Hermann in 1864 demonstrated its anesthetic powers but it was 1923 before Luckhardt and Carter published their findings.

Endotracheal anesthesia

Intubation of the trachea for resuscitation in animals was known in Vesalius' time, although it was about seventy-five years ago Trendelenburg introduced an endotracheal tube into a man.

SOME RECENT ADDITIONS TO THE LIBRARY

Alpers, B. J.	Vertigo and dizziness	1958
Anderson, W. A. D.	Pathology	1957
Andresen, A. F. R.	Office gastroenterology	1958
Askey, J. M.	Systematic arterial embolism	1957
Balint, Michael	The doctor, his patient and the illness	1957
Ballenger, Howard	Diseases of the ear, nose and throat	1957
Barrow, D. W.	Clinical management of varicose veins	1957
Beckman, Harry	Drugs, their action, nature and use	1958
Beierwaltes, W. H.	Clinical use of radioisotopes	1957
Black, D. A. K.	Essentials of fluid balance	1957
Bogaert, L. van	Cerebral lipidoses	1957
Bower, A. G.	Communicable diseases	1958
Breed, R. S.	Bergey's Manual of determinative bacteriology	1957
Bruch, Hilde	Importance of overweight	1957



Maryland SOCIETY OF PATHOLOGISTS INC.

PAUL F. GUERIN, M.D., *President*

ROBERT D. SOLOMON, M.D., *Secretary*
Sinai Hospital, Baltimore 5, Md.



WHAT'S WRONG WITH THE PRESENT-DAY DIAGNOSIS OF ANEMIA?

A common error in hematology is to diagnose anemia when none exists. This error occurs sometimes because of faulty laboratory techniques, but more commonly because the range of normal values is not appreciated. These are:

	Adult female (range)	Adult male (range)	Children 1-2 yr. (mean)	Children 5 yr. (mean)
Hematocrit	37-47%	40-45%	35%	37%
Hemoglobin	12-16gm%	14-18gm%	11.5gm%	12gm%

The hematocrit is the simplest and most accurate method for determining the presence of an anemia. Adequate hemoglobinometry requires (1) certified pipettes which are now available with errors of less than 2 per cent, and (2) frequent calibration of the colorimeter, now possible in every laboratory with commercially available cyanmethemoglobin standards.

In the determination of the type of anemia the ratio of hemoglobin to hematocrit (mean corpuscular hemoglobin concentration) is one of the most valuable "indices." An MCHC of 30 or less indicates a hypochromic anemia, usually due to iron deficiency; more rarely thalassemia. *Reticulocyte* counts are valuable in the diagnosis of hemolytic anemias.

Earlier technical difficulties of the reticulocyte count have been largely overcome by improved staining techniques and use of a Miller ocular for counting. *Red blood cell* counts are needed only for the determination of the mean corpuscular volume, i.e., for diagnosis of microcytic and macrocytic anemias. Multiple counts on the same sample are needed to give reliable figures.

After the diagnosis is established and therapy instituted, the *patient's course* can be adequately followed by hematocrit (or hemoglobin) determinations at suitable intervals. A reticulocyte rise during the first 10 days is the quickest and most reliable indication that the therapy given was specific. Reticulocyte counts done on alternate days or days 4, 7, and 10 of therapy will detect such a response.

Faulty identification of the type of anemia may be a serious failure. A mixture of hematinics may provide just enough liver to obscure hematologic signs of pernicious anemia, yet not enough to prevent permanent neurologic damage. Hematinics will do little for the anemia of hereditary spherocytosis which can be controlled by splenectomy. In cases of iron deficiency anemia, the cause, which may be a bleeding gastro-intestinal malignancy, must be established.

Health Departments

BALTIMORE CITY HEALTH DEPARTMENT

Birth Notification And Diphtheria Forms Revised

The Baltimore City Health Department on March 31 began the use of two newly revised documents of particular interest to physicians. The first is the Notification of Birth Registration form, and the second is the Diphtheria Inoculation Certificate.

The Notification of Birth Registration has been changed to include on its reverse side a Smallpox Vaccination Certificate. Physicians in Baltimore City can help in the completion of this form by asking parents to bring this combined birth notification—smallpox vaccination certificate with them at the time of the child's vaccination reaction reading. This new birth registration practice will assist parents when they register their children in school for the

first time by providing in one document proof of age and proof of vaccination, as required by State Law.

The second form, the Diphtheria Inoculation Certificate, has been changed from a double report card which included the physician's report to the City Health Department and a record for the use of parents to a single certificate for parents. With this change physicians were advised by letter that they need no longer submit records of diphtheria inoculation to the City Health Department. The new form is to be retained by the parents of children inoculated, and they should be advised to keep it with their family papers. Sample copies of the new forms have been sent to all physicians in the city.

Huntington Williams, M.D.

Commissioner of Health

SECOND OKLAHOMA COLLOQUY ON ADVANCES IN MEDICINE

The Second Oklahoma Colloquy on Advances in Medicine will be held on November 12, 13, 14 and 15. It will be devoted to Arthritis and Related Disorders and is under the joint sponsorship of the Department of Medicine, University of Oklahoma, the Division of Postgraduate Education, Geigy Pharmaceuticals, Wyeth Laboratories, The Upjohn Company, Pfizer Laboratories, and Schering Corporation.

Twelve nationally prominent investigators in their field will participate and present the results of original work from their laboratories.

Registration will be open to all physicians. Further information may be obtained by writing to the Division of Postgraduate Education, University of Oklahoma School of Medicine, Oklahoma City, Oklahoma.

STATE OF MARYLAND DEPARTMENT OF HEALTH

MONTHLY COMMUNICABLE DISEASE REPORT

Case Reports Received during 4-week Period, April 25-May 22, 1958

	CHICKENPOX	DIPHTHERIA	GERMAN MEASLES	HEPATITIS, INFECTION, AND SERUM	MEASLES	MENINGOCOCCAL INFECTIONS	MUMPS	POLIOMYELITIS, PARALYTIC	POLIOMYELITIS, NON-PARALYTIC	ROCKY MT. SPOTTED FEVER	STREP. SORE THROAT INCL. SCARLET FEVER	TYPHOID FEVER	WHOOPING COUGH	TUBERCULOSIS, RESPIRATORY	SYPHILIS, PRIMARY AND SECONDARY	GONORRHEA	OTHER DISEASES	DEATHS
Total, 4 weeks																		
Local areas																		
Baltimore County.....	31	—	130	—	96	—	11	—	—	—	4	—	—	12	1	—	m-2	3
Anne Arundel.....	7	—	3	1	21	—	—	—	—	—	4	—	—	12	—	2	—	2
Howard.....	1	—	—	1	1	—	—	—	—	—	—	—	—	4	—	1	e-1	—
Harford.....	—	—	2	—	5	—	3	—	—	—	—	—	—	1	—	—	—	1
Carroll.....	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	5
Frederick.....	2	—	4	—	1	—	—	—	—	—	2	—	—	2	1	—	—	1
Washington.....	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	10	—	1
Allegany.....	1	—	—	—	16	1	6	—	—	—	4	—	—	8	—	1	—	1
Garrett.....	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Montgomery.....	29	—	98	2	167	—	1	—	—	—	20	—	—	2	—	3	e-2 m-1	1
Prince George's.....	3	—	48	—	40	—	1	—	—	—	6	—	5	8	1	1	—	8
Calvert.....	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Charles.....	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Saint Mary's.....	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Cecil.....	—	—	—	—	3	—	—	—	—	—	—	—	—	1	—	—	—	1
Kent.....	2	—	3	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—
Queen Anne's.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Caroline.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Talbot.....	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1
Dorchester.....	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	1	—	—
Wicomico.....	—	—	1	—	16	—	4	—	—	—	2	—	—	4	—	—	—	3
Worcester.....	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	—	1
Somerset.....	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—
Total, Counties.....	76	0	289	4	372	1	26	0	0	0	42	0	5	67	5*	19	—	31
Baltimore City.....	145	1	290	5	280	2	52	0	0	0	14	1	5	74	14	544	e-1	25
State																		
Apr. 25-May 22, 1958....	221	1	579	9	652	3	78	0	0	0	56	1	10	141	19	563	—	56
Same period 1957.....	219	0	47	7	236	4	287	0	0	1	110	0	32	136	11	522	—	38
5-year median.....	465	1	122	36	570	3	354	1	—	2	149	1	28	181	17	600	—	51
Cumulative totals																		
State																		
Year 1958 to date.....	1135	3	1570	45	5390	13	262	0	0	0	389	2	38	683	88	2606	—	507
Same period 1957.....	1627	1	165	67	599	15	1490	0	0	1	635	1	103	703	90	2672	—	309
5-year median.....	2593	5	422	125	3333	26	1434	3	—	2	1101	6	139	842	97	2770	—	394

e = encephalitis.

m = meningitis, other than meningococcal.

* = total includes cases reported by State Hospitals or Institutions.



Blue Cross - Blue Shield



A NEW BLUE SHIELD BENEFIT

By DENWOOD N. KELLY*

An additional Blue Shield benefit has recently been approved which should be of considerable interest to all Maryland physicians. In the past Maryland Medical Service has had no specifically scheduled benefits for radioisotope therapy, although such benefits from time to time have been provided on an individual consideration basis. With the help of a committee of specialists in this field of medicine, the following schedule of benefits was developed, becoming effective May 1, 1958.

These benefits include the physician's initial evaluation of the patient, planning and calculation of the dosage, the course of treatment, and the necessary follow-up visits to observe and measure the effect. The cost of the materials is not included. These benefits are available only for radioisotope therapy administered in a hospital, either on an inpatient or outpatient basis.

All participating physicians have been individually notified of this addition and supplied with a corrected page for insertion in their Blue Shield manuals.

* Assistant Director, Blue Shield.

Procedure	Maximum Allowance for Full Course of Therapy (Including follow-up care)	
	Plan A	Plan B
1. Radioactive iodine (I^{131}) in the treatment of benign diseases (thyroid, cardiac and pulmonary lesions). Further therapy deemed necessary six months or more after the date of the last dose of the previous course to be considered therapy of a recurrence and to constitute a separate course of treatment. Each course.....	\$75.00	\$125.00
2. Radioactive iodine (I^{131}) in the therapy of malignant thyroid diseases. Further therapy deemed necessary four months or more after date of last dose of the previous course to be considered as a new course of therapy. Each course.....	\$75.00	\$125.00
3. Radioactive phosphorous (P^{32}) or other radioactive isotopes in the therapy of blood dyscrasias. Each course.....	\$40.00	\$60.00
a. Further therapy deemed necessary four months after the date of the last dose of the previous course to be considered a new course. Each such subsequent course.....	\$25.00	\$40.00
4. Intracavitary or interstitial radioactive gold, chromic phosphate, or other isotopes.....	\$50.00	\$75.00

lowance
urse of
cluding
care)
Plan B

125.00

125.00

\$60.00

\$40.00

\$75.00

UNIVERSITY OF MICHIGAN LIBRARIES



Woman's Auxiliary Medical and Chirurgical Faculty



MRS. HOMER ULRIC TODD, SR., *Auxiliary Editor*

ACCEPTANCE SPEECH, 1958

MRS. E. RODERICK SHIPLEY*

I now step into the office of president with the sincere desire to carry out the aims and projects of this Auxiliary with the same devotion and attention to detail that my worthy predecessors have shown. With the help of my officers and chairmen and the



MRS. E. RODERICK SHIPLEY

support of the membership in general, we can and will progress.

Health is a joint endeavor: This has been the theme this past year for all of the Auxiliaries in the United States. Mrs. Paul C. Craig, our National President, has kept to this motto in all the directives

* Elected President of the Woman's Auxiliary to the Medical and Chirurgical Faculty of the State of Maryland at the Annual Convention, April 16, 1958.

that we have received. I feel that this is the basic idea that has been in all of our activities since we first began to function.

The health of the community at large is always one of our considerations. What can we do to better the environment in which we live and raise our families? The patients that our doctors see are easier to care for and better cared for if some of the situations that cause mass illness and sometimes tragedy are lessened or removed. In our position, we are given rapid and expert knowledge of the needs and remedies of any health problem that may arise. The Auxiliary will do all in its power to follow the lead of the Medical Society, wherever it directs us, in the pursuit of health for our community and country.

Safety has been one of our projects this year. We have done little actively about safety, but we have learned that Maryland is very near the bottom of the list of states having legislation that can reduce the terrible traffic death toll. Now we know enough to seek out the people to work with and are aware of the sort of laws needed. We want to see our legislative bodies pass some of the bills that will really reduce and prevent traffic accidents. We shall work with the people at large, the Medical Society and the President of the United States for the success of this project.

Mental health is another subject of which we are gaining more knowledge through our programs. Efforts are being made to promote all phases of mental hygiene that it is within our ability to do. People are not physically healthy when they are not mentally healthy. Physicians today are giving renewed emphasis to the fact that it is their responsibility to minister not only to the human body and its ills but also to human hearts, minds and emotions.

Health is a joint endeavor: The health of the Medical Society as a useful and progressive organization is the result of the interest and activity of the membership itself. Marriage is a mutual project in which the husband and wife form a team working

together for success. Every doctor's wife whether she wishes to be or not is a spokesman and a public relations agent for the medical profession.

We are actively working on some of the things we find to be very essential to the medical profession. The "American Medical Education Foundation" has had substantial contributions from us each year and we are fully aware of the need for support of our medical schools financially and legislatively. The "Future Nurses Clubs" that are in almost all of the high schools in our State are inducing students to enter the nursing profession and other allied medical careers such as medical technicians, medical secretaries, biologists, x-ray technicians, etc.

This year is the first that there has been a Student A.M.A. Auxiliary. They are an independent medical student organization. Our role in this new venture is one of an advisor and helper when requested. These student wives are learning all they can that will help them be better wives to doctors and gaining an insight into the great world of medicine. They are at the same time getting to know each other and solving problems that sometimes become unsurmountable for an individual. They are intelligent, inquisitive, independent and charming young ladies as well as being, in most cases, the mothers of young children. These members of "SAMA" are the future of the Auxiliary and a most welcome addition. They are holding their first convention in Chicago this year to which each school will send a representative.

Dr. David Allman, President of the American Medical Association, wrote a message concerning the Auxiliary in the A.M.A. Journal and I quote: "An Auxiliary member is a tireless worker; she backs away from no task when she is inspired to a cause, she is devoted, selfless, unstinting of her time, creative, clever, practical and resourceful. Give her the opportunity to serve and give the Auxiliary full support. You will quickly learn the power of your most valuable ally." This is what we want to be and we are happy to find that Dr. Allman thinks we are. Let me repeat that the well being of medicine in general and of the Medical Society in particular is our constant interest.

Health is a joint endeavor: Our home is the place that consideration of health is too frequently put last. We are all working to take advantage of the latest that medical science and intellect has to offer. We of the Auxiliary recognize the need to take the best possible care of our physician husbands who

frequently will not take time out to take care of themselves, their wives or their children. We don't want to be like the proverbial shoemaker's children. Safety first rules at home enable us to talk safety to others with authority that is gained by experience and self education. Our children are ambassadors to the world that they meet each day.

Health is a joint endeavor: Someone recently said during Library Week: "Just think, if you could meet all the great and wonderful people of your age, but most people meet only one or two if that." By belonging to the Auxiliary and working hand in hand with the Medical Society, we meet by proxy all of the great and wonderful people of Medicine and allied sciences.

Much can be accomplished and we can find great pleasure in a joint endeavor that repays us with friendship, knowledge and that feeling of a job well done.

In conclusion, let me thank you for the honor you have bestowed upon me. With the help of God, we shall, this year, take a further step forward in service to the medical profession and mankind.

"CANDLELIGHT EXPRESS"

Of special interest to all members of the medical profession is the effort of the Woman's Auxiliary of the Medical and Chirurgical Faculty to encourage young women to take up nursing as a career. To further this end, the Auxiliary publishes an informative little paper entitled "Candlelight Express." It is distributed to all Future Nurses Clubs in the State and to members of the Woman's Auxiliary, and to other organizations that have indicated an interest in "nursing news." There are approximately eighty names on the mailing list, but, of course, this means a much larger number of readers as some of the clubs have as many as thirty-seven members.

The January issue of "Candlelight" contained items from nine high schools. The Future Nurses Club at each of these schools had a special holiday project for helping the aged and ill. They made decorations, collected gifts, planned entertainments, and in every way possible proved their ability to provide the "TCL" (tender, loving care) so essential to a patient's welfare.

These young girls take preparation for their future work very seriously. They make bandages for use in nursing homes; they visit schools of nurs-

ing; and they invite speakers to their meetings who can instruct them on all facets of life as a nurse.

In addition to these projects, each school group reports some special accomplishment.

Dunbar High School, for instance, planned to hold a "White Elephant Sale" as a fund raising project.

The club members at Franklin High have already collected \$230 from their faculty and homerooms. Their goal is \$500; this they intend to use to equip a room in the Carroll County Hospital.

At Frederick High School, the pre-nurses sponsored a campaign to encourage all students to take polio shots.

The girls at Hereford have done many useful services for the inmates of the Long View Nursing Home.

The group at High Point High School toured the University of Maryland Hospital and acquired a first hand impression of nursing requirements.

A movie on life as a student nurse was shown at Montgomery Hills Junior High School. Later this school was visited by several nurses from Sibley Hospital, Washington, who gave them additional information on a student nurse's duties.

Down in Southern Maryland the "F. N's" at Surrattsville High assisted with the Diabetes Detec-

tion Drive and tested approximately 715 specimens. They also participated in the March of Dimes Drive.

Towson Junior High students, cooperating with the Mental Hygiene Society, collected presents to be given to patients in State mental hospitals.

Baltimore's Western High club is very enthusiastic about the "Pinkie" course at the Maryland General Hospital. In fact, some of these girls are "Pinkies" already.

In January's "Candlelight," an "Achievement Award" was announced. It is to be given to the Future Nurse Club of Maryland which makes the greatest contribution to a committee project or service activity during the 1957-58 school year. This Award is being made by the Maryland League for Nursing and the Woman's Auxiliary to the Medical and Chirurgical Faculty of Maryland.

The Woman's Auxiliary believes that the dissemination of news about these "FNC" activities will encourage the enrollment of additional members. Every club should advise the Recruitment Chairmen, Mrs. Charles H. Williams, 1632 Reisterstown Road, Pikesville 8, Maryland or Mrs. D. D. Caples, 38 Chatsworth Avenue, Reisterstown, Maryland of the number of their members, so that adequate records may be kept.

NORTHEASTERN SURGICAL CONFERENCE

JUNE 30-JULY 5

The fourth annual Northeastern regional meeting of the International College of Surgeons will be held from June 30th to July 5th in Manchester, Vermont.

Latest developments in the surgical specialties will be emphasized in the scientific lectures, panels and symposia. The educational program will cover medical economics, estate planning, tax problems and public relations.

The scientific program includes the following lectures: "Premedication for the Surgical Patient, with Special Reference to the Tranquilizers," by Dr. Irving A. Pallin of Brooklyn; "Anatomical Factors in Goiter Surgery," by Dr. Max Simon, Poughkeepsie; "The Metabolic Response to Surgery," by Dr. Joseph A. Malejka, New York; "The Neurosurgical Management of Intractable Pain of Cancer," by Dr. Joseph F. Dorsey, Boston; "The Surgeon's Role in Traffic Liabilities," by Dr. Earl Carl, Lansing, Michigan; "Modern Advances in the Preservation of Red Blood Cells," by Dr. Ross T. McIntire, Chicago.

Included in the motion picture program will be one by Dr. Philip Thorek, Chicago, showing the perforation of the esophagus in a sword swallower.

For further information write to Dr. M. Leopold Brodny, 636 Beacon Street, Boston 15, Massachusetts.

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RESOLUTIONS

Medical and Chirurgical Faculty

All resolutions to be presented to the House of Delegates at its meeting on Friday, September 12, 1958, *must* be in the Faculty Office, 1211 Cathedral Street, *no later* than Friday, July 18, 1958.